Filed pursuant to Rule 424(b)(4)
Registration Statement No. 333-112261

6,900,000 Shares

CYTOKINETICS

Common Stock

This is an initial public offering of shares of common stock of Cytokinetics, Incorporated. All of the 6,900,000 shares of common stock are being sold by Cytokinetics.

Prior to this offering, there has been no public market for the common stock. The common stock has been approved for quotation on the Nasdaq National Market under the symbol "CYTK".

See "Risk Factors" on page 8 to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$ 13.00	$89,700,000
Underwriting discount	$ 0.91	$ 6,279,000
Proceeds, before expenses, to Cytokinetics	$ 12.09	$83,421,000

To the extent that the underwriters sell more than 6,900,000 shares of common stock, the underwriters have the option to purchase up to an additional 1,035,000 shares from Cytokinetics at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on May 4, 2004.

Goldman, Sachs & Co.

Credit Suisse First Boston

Pacific Growth Equities, LLC

Lazard

Prospectus dated April 29, 2004.

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PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information regarding us, the sale of our common stock in this offering and the private placement described below, our financial statements and notes to those financial statements that appear elsewhere in this prospectus.

Cytokinetics, Incorporated

We are a leading biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule drugs that specifically target the cytoskeleton. The cytoskeleton is a complex biological infrastructure that plays a fundamental role within every human cell. A number of commonly used drugs and a growing body of research validate the role that the cytoskeleton plays in a wide array of human diseases. Our focus on the cytoskeleton enables us to develop novel and potentially safer and more effective classes of drugs directed at treatments for cancer, cardiovascular disease, fungal diseases and other diseases. We have developed a cell biology driven approach and proprietary technologies to evaluate the function of many interacting proteins in the complex environment of the intact human cell. We believe that our approach enhances the speed, efficiency and yield of our drug discovery and development process by accurately and rapidly identifying drug candidates with attractive properties. Our approach has yielded two drug candidates for the treatment of cancer, a drug candidate for the treatment of acute congestive heart failure and more than ten other research programs. Our most advanced drug candidate, SB-715992, is the subject of a broad Phase II clinical trials program designed to evaluate its effectiveness in many different types of cancer. An investigational new drug application, or IND, was filed with the U.S. Food and Drug Administration, or FDA, in 2003 for our second cancer drug candidate, SB-743921, which we expect will enter Phase I clinical development in early 2004. SB-715992 and SB-743921 are being developed through our strategic alliance with GlaxoSmithKline. In addition, we expect to initiate Phase I clinical development for a drug candidate, CK-1213296, for the treatment of acute congestive heart failure in the second half of 2004. Our strategy involves developing our own commercialization capabilities for those of our drug candidates that are directed towards large concentrated markets, and to enter into strategic alliances to develop and commercialize drug candidates for other markets. We do not currently have any commercial capabilities, and it is possible that we may never be able to demonstrate safety and efficacy and successfully commercialize any of our drug candidates. Our leading drug candidates are in clinical or earlier stages of development, and we have neither received regulatory approval for, nor derived commercial revenues from, any of them and we expect to incur increasing losses over the next several years.

Our Focus on the Cytoskeleton

We believe that the cytoskeleton is one of a few biological areas with broad potential for drug discovery and development and has been scientifically and commercially validated in a wide variety of human diseases. For example, the cytoskeleton plays a fundamental role in the cell proliferation process, and cancer is a disease of unregulated cell proliferation. A number of commonly used cancer drugs inhibit cell proliferation by disrupting aspects of cytoskeletal function. However, these drugs also interrupt cytoskeletal functions unrelated to cell proliferation. This limits their clinical benefit and results in dose-limiting toxicities. As another example, the cytoskeleton plays a fundamental role in cardiac muscle contraction and has been linked to the origins of congestive heart failure, a disease of impaired cardiac function. Certain commonly used congestive heart failure drugs that work by indirectly modulating cytoskeletal function have limited therapeutic value due to their clinical side effects. We believe that our understanding of the cytoskeleton will allow us to develop potentially safer and more effective drugs for cancer and congestive heart failure. Our other research programs are also focused on diseases in which we believe the cytoskeleton plays a significant role.

Our Drug Candidates

- ***Cancer:*** **SB-715992 has entered a Phase II clinical trial for the treatment of non-small cell lung cancer and is expected to enter multiple Phase II clinical trials in other solid cancers throughout 2004.** SB-715992 is a novel small molecule drug candidate that inhibits cell proliferation and promotes cancer cell death by specifically disrupting the function of a cytoskeletal protein known as kinesin spindle protein, or KSP. KSP is essential for cell proliferation, a process that when unregulated results in tumor growth. KSP plays no role outside of cell proliferation. Current drugs that inhibit cell proliferation, such as Taxol® (paclitaxel) and Taxotere® (docetaxel), are standard treatments for many types of cancers, but these drugs target tubulin, a cytoskeletal protein that is essential not only to cell proliferation but also to many other important cellular functions. Because SB-715992 inhibits only cell proliferation, we believe it may exhibit a lower incidence of toxicities than many existing cancer drugs. In addition, SB-715992's novel mechanism of action may be effective against a broader range of tumor types.

  We are participating in the development of SB-715992 which is being conducted by GlaxoSmithKline, or GSK, under our strategic alliance. GSK commenced a Phase II clinical trial for SB-715992 in non-small cell lung cancer in late 2003. A number of parallel Phase II monotherapy clinical trials and Phase Ib combination therapy clinical trials are scheduled to begin throughout 2004. These clinical trials are expected to evaluate this novel drug candidate in multiple tumor types including colorectal, breast and ovarian cancers. Also in 2004, the National Cancer Institute, or NCI, plans to sponsor additional Phase I and Phase II clinical trials designed to evaluate SB-715992 in other tumor types and other dosing regimens.

- ***Cancer:*** **SB-743921 is expected to enter Phase I clinical trials in early 2004.** This drug candidate also inhibits KSP but is structurally distinct from SB-715992. We believe that having two KSP inhibitors for the potential treatment of cancer in concurrent clinical development increases the likelihood that a commercial drug will be developed. SB-743921 is also being developed by GSK through our strategic alliance.

- ***Cardiovascular Disease:*** **We expect to file an IND for CK-1213296, our drug candidate for the treatment of acute congestive heart failure, in the second half of 2004, and, assuming no action by the FDA, to initiate a Phase I clinical trial by the end of 2004.** Our drug candidate specifically targets a cytoskeletal protein, cardiac myosin, which is essential for cardiac muscle contraction. In animal models, CK-1213296 improves cardiac function without detrimental effects on heart rhythm, heart rate or blood pressure that limit the effectiveness of existing drugs. However, results in animal models are not necessarily predictive of results in humans, and we will not have data regarding the efficacy of CK-1213296 in humans until we complete clinical trials of this drug candidate.

Our drug candidates are in the early stages of development, and we must complete clinical trials to determine if they are safe and effective in humans. Results of early stages of development may not be predictive of results in later stages of development, and clinical trials may fail to demonstrate the safety and efficacy of our drug candidates, preventing or delaying the completion of development and regulatory approval.

Our Research Programs

We have more than ten research programs that address multiple therapeutic areas, such as fungal diseases, inflammatory diseases, high blood pressure and asthma. We structure our research programs in these therapeutic areas around cytoskeletal protein targets seeking to discover suitable compounds that may potentially address unmet clinical needs and shortcomings of existing drugs. From among these compounds we may choose a drug candidate for Phase I clinical trials.

Our Cell Biology Driven Approach to Drug Discovery and Development

All of our compounds in research and development have been discovered internally using our unique cell biology driven approach. We develop a detailed understanding of multiple proteins within a cytoskeletal pathway or multi-protein system to identify various intervention points to modulate the pathway or system to treat disease. We can then direct our discovery activities to specific cytoskeletal proteins that may be attractive targets for the development of potentially safer and more effective drugs.

We have also developed proprietary automated technologies, including our PUMA system and Cytometrix technologies, to enable early identification and prioritization of compounds that are highly selective for their intended protein targets without other cellular effects, and are thereby less likely to give rise to clinical side effects. The integrated use of these technologies enables us to efficiently focus our research efforts and resources on those compounds directed at novel cytoskeletal protein targets that are more likely to yield attractive drug candidates. We have advanced our Cytometrix technologies through technical development activities conducted with each of Eisai Research Institute, Novartis Pharma AG, Tularik Inc. and Vertex Pharmaceuticals, Inc.

Our Strategic Alliances

We selectively seek strategic alliances that enable us to maintain financial and operational flexibility while retaining significant economic and commercial rights to our drug candidates. In June 2001, we entered into a strategic alliance with GSK to discover, develop and commercialize small molecule drugs for the treatment of cancer as well as other diseases by targeting KSP and certain other related cytoskeletal proteins involved in cell proliferation. Under this strategic alliance, GSK has made a $14.0 million upfront cash payment and an initial $14.0 million investment in our equity. GSK has also committed to reimburse our full time equivalents, or FTEs, conducting research in connection with the strategic alliance and to make additional precommercialization milestone payments to us and pay royalties to us based on product sales. As of December 31, 2003, we have received $17.2 million in FTE reimbursement and $3.2 million in precommercialization milestone payments from GSK. We will receive future FTE reimbursement and could receive significant precommercialization milestone payments and royalties based on product sales. In addition, we retain both a product-by-product option to co-fund certain later-stage development activities in exchange for a higher royalty rate, and an option to secure additional co-promotion rights. In December 2003, we entered into a strategic alliance with AstraZeneca AB to fund and participate in the development of a new application of our Cytometrix technologies for use by both parties.

Our Corporate Strategy

Our goal is to become a fully-integrated biopharmaceutical company focused on discovering, developing and commercializing novel drugs to treat cancer, cardiovascular disease and other diseases. We intend to achieve this goal by:

- focusing on the cytoskeleton;
- leveraging our cell biology driven approach and proprietary technologies to increase the speed, efficiency and yield of our drug discovery and development process;
- pursuing multiple drug candidates for each cytoskeletal protein target and broad clinical trials for each drug candidate;
- establishing select strategic alliances to accelerate our drug development programs while preserving significant development and commercial rights; and
- building development and commercialization capabilities directed towards large concentrated markets.

Risks

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in “Risk Factors”. All of our drug candidates, including SB-715992, SB-743921 and CK-1213296, are in clinical or earlier stages of development. Accordingly, we have not received regulatory approval for, nor commercial revenues from, any of our drug candidates. It is possible that neither we nor our partners may ever successfully commercialize any of our drug candidates. As of December 31, 2003, we had incurred $94.1 million in net losses since inception. Because our leading drug candidates are in the early stages of clinical testing, we expect to continue to incur increasing losses over the next several years, and we may never become profitable.

Private Sale of Shares to GSK

We have entered into an agreement pursuant to which we will sell an affiliate of GSK approximately $7.0 million of our common stock immediately prior to the completion of this offering at a per share price equal to our per share initial public offering price. Given the initial public offering price of $13.00 per share, an affiliate of GSK will purchase 538,461 restricted shares of our common stock at a price of $13.00 per share.

Company Information

We were incorporated in Delaware in August 1997 as Cytokinetics, Incorporated. Our principal executive offices are located at 280 East Grand Avenue, South San Francisco, California 94080, and our telephone number is (650) 624-3000. Our website address is http://www.cytokinetics.com. Information contained in our website is not a part of this prospectus. References in this prospectus to “we,” “us” and “our” refer to Cytokinetics, Incorporated.

The Offering

Common stock offered	6,900,000 shares
Common stock to be outstanding after this offering	26,845,343 shares
Use of proceeds	For general corporate purposes, including the potential co-funding of certain later-stage development activities with respect to SB-715992 or SB-743921; preclinical activities and clinical development of CK-1213296, our drug candidate for the treatment of acute congestive heart failure; research programs; development, sales, marketing and manufacturing operations and the potential license or acquisition of complementary technologies. See "Use of Proceeds."
Proposed Nasdaq National Market symbol	CYTK

The number of shares of common stock to be outstanding after this offering is based on 2,307,258 shares of common stock outstanding as of December 31, 2003 and also reflects the automatic conversion of preferred stock into 17,099,624 shares of common stock. This number does not include, as of December 31, 2003:

- 2,244,378 shares of common stock issuable upon exercise of options outstanding, at a weighted average exercise price of $1.06 per share;
- 100,000 shares of common stock issuable upon the exercise of warrants to purchase common stock and 181,983 shares of preferred stock issuable upon the exercise of warrants to purchase preferred stock (which will become exercisable for 90,991 shares of common stock upon consummation of this offering);
- 390,677 shares of common stock reserved for issuance under our 1997 Stock Option/ Stock Issuance Plan; and
- 2,100,000 shares of common stock to be reserved for future issuance under our 2004 Equity Incentive Plan and our 2004 Employee Stock Purchase Plan.

Except as otherwise indicated, all information in this prospectus:

- gives effect to our certificate of incorporation which we will file immediately prior to the closing of this offering;
- gives effect to the automatic conversion of all outstanding shares of preferred stock into shares of common stock upon the closing of this offering;
- gives effect to a 1-for-2 reverse stock split effected by Cytokinetics on April 26, 2004;
- gives effect to the sale of 538,461 shares of common stock to an affiliate of GSK in a concurrent private placement based on the initial public offering price of $13.00 per share; and
- assumes no exercise by the underwriters of their option to purchase 1,035,000 additional shares from Cytokinetics in this offering.

Summary Financial Data

The following table summarizes our financial data. The summary financial data for the years ended December 31, 2001, 2002 and 2003 are derived from our audited financial statements included in this prospectus. You should read these data together with our financial statements and related notes and the information under "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." See Note 10 to our financial statements for information regarding pro forma common shares outstanding and pro forma net loss per share.

	Years Ended December 31,			Cumulative Period from August 5, 1997 (date of Inception) to December 31,
	2001	2002	2003	2003
	(in thousands, except for per share data)			
Statement of Operations Data:				
Revenues:				
Research and development revenues from related party	$ 6,764	$ 8,470	$ 7,703	$ 22,937
Research and development and grant revenues	302	126	74	502
License revenues from related party	1,400	2,800	2,800	7,000
	8,466	11,396	10,577	30,439
Operating expenses:				
Research and development (1)	20,961	28,424	34,004	100,817
General and administrative (1)	5,897	6,953	9,163	28,136
Total operating expenses	26,858	35,377	43,167	128,953
Loss from operations	(18,392)	(23,981)	(32,590)	(98,514)
Interest and other income (expense), net	2,518	901	(95)	4,440
Net loss	$(15,874)	$(23,080)	$(32,685)	$ (94,074)
Net loss per share:				
Basic and diluted	$ (11.18)	$ (13.25)	$ (17.10)	
Pro forma net loss per share:				
Basic and diluted (unaudited) (2)			$ (1.81)	
Weighted-average number of shares used in pro forma per share calculation:				
Basic and diluted (unaudited) (2)			18,025	

(1) Includes non-cash stock-based compensation.

(2) Gives effect to the conversion of all outstanding shares of preferred stock into 17,099,624 shares of our common stock effective upon the closing of this offering. See Note 10 to our financial statements.

	As of December 31, 2003		
	Actual	Pro Forma	Pro Forma, As Adjusted
		(in thousands)	
Balance Sheet Data:			
Cash, cash equivalents, short-term and long-term investments	$ 43,045	$ 43,045	$131,590
Restricted cash	7,199	7,199	7,199
Working capital(1)	27,619	27,619	116,164
Total assets	62,873	62,873	151,418
Long-term portion of equipment financing lines	8,075	8,075	8,075
Convertible preferred stock	133,172	—	—
Deficit accumulated during the development stage	(94,074)	(94,074)	(94,074)
Total stockholders' (deficit) equity	(92,031)	41,141	129,686

The table above presents summary balance sheet data on an actual basis, on a pro forma basis and on a pro forma as adjusted basis. The pro forma numbers reflect the conversion of all of our preferred stock into an aggregate of 17,099,624 shares of our common stock immediately upon the closing of this offering and the pro forma as adjusted numbers reflect the sale of 538,461 shares of our common stock to an affiliate of GSK based on the initial offering price of $13.00 per share and the sale of 6,900,000 shares of our common stock at the initial public offering price of $13.00 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(1) Represents current assets less current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below with all of the other information included in this prospectus before making an investment decision. If any of the possible adverse events described below actually occurs, our business, results of operations or financial condition would likely suffer. In such an event, the market price of our common stock could decline and you could lose all or part of your investment in our common stock.

Risks Related to Our Business

Our initial 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 initial 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. Our net loss for the fiscal years ended December 31, 2003, 2002 and 2001 was $32.7 million, $23.1 million and $15.9 million, respectively. As of December 31, 2003, we had an accumulated deficit of $94.1 million. We expect to incur increasing losses for several years, as we continue our research activities and conduct development of, and seek regulatory approvals for, our initial drug candidates, and commercialize any approved drugs. If our initial drug candidates fail 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 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 before the FDA and other regulatory authorities in the United States and abroad. We and our partners will need to conduct significant additional research, preclinical testing and clinical testing, before we or our partners can file applications with the FDA 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. We may not achieve any of these objectives. SB-715992, our most advanced drug candidate for the treatment of cancer, is currently our only drug candidate in clinical trials and we cannot be certain that the clinical development of this or any other drug candidate in preclinical testing or clinical development will be successful, that it will receive the regulatory approvals required to commercialize it, or that any of our other research programs will yield a drug candidate suitable for entry into clinical trials. 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. We expect that SB-743921, our other cancer drug candidate, will enter Phase I clinical trials in early 2004. Because SB-743921 has a similar mechanism of action as SB-715992, the development of one or both of these drug candidates may be discontinued at any stage of our clinical trials programs and we may not generate revenue from either of these drug candidates.

We have funded all of our operations and capital expenditures with proceeds from private placements of our securities and strategic alliances with GSK and others. We expect that the net proceeds of this offering, together with our existing cash resources, future payments from GSK and AstraZeneca, proceeds from equipment financings, and interest earned on investments will be

sufficient to meet our projected operating requirements for at least the next 24 months. For the year ended December 31, 2003, our cash outflow to fund operations was approximately $30.5 million. To meet our future cash requirements, we may raise funds through public or private equity offerings, debt financings or strategic alliances. 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 debt financing, if available, this may involve covenants that restrict our business activities. 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.

Clinical trials may fail to demonstrate the 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 demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA and other regulatory authorities in the United States and abroad, that such drug candidate is both safe and effective. We will need to demonstrate efficacy for the treatment of specific indications and monitor safety throughout the clinical development process. To date, long-term safety and efficacy have not yet been demonstrated in clinical trials for any of our drug candidates. Through our strategic alliance, GSK is currently conducting a Phase II clinical trial to test the safety and efficacy of SB-715992 in non-small cell lung cancer. Additional Phase II and Phase Ib clinical trials for SB-715992 and Phase I clinical trials for SB-743921 are scheduled to begin throughout 2004. If these trials or future clinical trials are unsuccessful, our business and reputation would be harmed and our stock price would be negatively affected.

All of our drug candidates are prone to the risks of failure inherent in drug development. The results of preclinical studies and early-stage clinical trials of our drug candidates do not necessarily predict the results of later-stage clinical trials. Drug candidates in later-stage clinical trials may fail to show desired safety and efficacy traits despite having progressed through initial clinical trials. Even if we believe the data collected from clinical trials of our drug candidates are promising, such data may not be sufficient to support approval by the FDA or any other United States or foreign regulatory approval. Preclinical and clinical data can be interpreted in different ways. Accordingly, FDA officials could interpret the data in different ways than we or our partners do, which could delay, limit or prevent regulatory approval. Administering any of our drug candidates to humans may produce undesirable side effects. These side effects could interrupt, delay or halt clinical trials of our drug candidates and could result in the FDA or other regulatory authorities denying approval of our drug candidates for any or all targeted indications. The FDA, other regulatory authorities, our partners or we may suspend or terminate clinical trials at any time. Any failure or significant delay in completing clinical trials for our drug candidates, or in receiving regulatory approval for the sale of any drugs resulting from our drug candidates, may severely harm our business and reputation.

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

Clinical trials are very expensive and difficult to design and implement, especially in the cancer and congestive heart failure indications that we are pursuing, in part because they are subject to rigorous requirements. The clinical trial process is also time consuming. According to industry sources, the entire drug development and testing process takes on average 12 to 15 years. According to industry studies, the fully capitalized resource cost of new drug development is approximately $800 million, however, individual trials and individual drug candidates may incur a range of costs above or below this average. We estimate that clinical trials of our most advanced drug candidates will continue for several years, but may take significantly longer to complete. The

commencement and completion of our clinical trials could be delayed or prevented by several factors, including:

- delays in obtaining regulatory approvals to commence a study;
- delays in identifying and reaching agreement on acceptable terms with prospective clinical trial sites;
- slower than expected rates of patient recruitment and enrollment;
- lack of effectiveness during clinical trials;
- unforeseen safety issues;
- uncertain dosing issues;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

We do not know whether planned clinical trials will begin on time, 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 depend on GSK for the conduct, completion and funding of the clinical development and commercialization of our current drug candidates for the treatment of cancer.

Under our strategic alliance with GSK, GSK is currently responsible for the clinical development and regulatory approval of SB-715992 and SB-743921. GSK is responsible for filing applications with the FDA or other regulatory authorities for approval of these drug candidates, and will be the owner of any marketing approvals issued by the FDA or other regulatory authorities. If the FDA or other regulatory authorities approve these drug candidates, GSK will also be responsible for the marketing and sale of these drugs. Because GSK is responsible for these functions, we cannot control whether GSK will devote sufficient attention and resources to the clinical trials program or will proceed in an expeditious manner. Under certain circumstances, GSK has discretion to elect whether to pursue the development of our drug candidates or to abandon the clinical trials program, and, after June 20, 2006, GSK may terminate our strategic alliance for any reason upon six months prior notice. Disputes may arise between us and GSK, which may delay or cause termination of the clinical trials program, result in significant litigation or arbitration, or cause GSK to act in a manner that is not in our best interest. If development of our drug candidates does not progress for these or any other reasons, we would not receive further milestone payments from GSK. Even if the FDA or other regulatory agencies approve one or more of our drug candidates, GSK may elect not to proceed with the commercialization of such drugs, or may elect to pursue commercialization of one drug but not others. In such event, we would have to undertake and fund the clinical development of our drug candidates or commercialization of our drugs, seek a new partner for clinical development or commercialization, or curtail or abandon the clinical development or commercialization programs. If we were unable to do so on acceptable terms, or at all, our business would be harmed, and the price of our common stock would be negatively affected.

If we fail to enter into and maintain successful strategic alliances for our drug candidates, we may have to reduce or delay our drug candidate development or increase our expenditures.

Our strategy for developing, manufacturing and commercializing in certain therapeutic areas 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 have formed a strategic alliance with GSK with respect to SB-715992, SB-743921 and certain other research activities. However, we may not be able to negotiate additional 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 may have to limit the size or scope of, or

delay, one or more of our drug development programs or research programs or undertake and fund these programs ourselves. If we elect to increase our expenditures to fund drug development programs or research programs on our own, we will need to obtain additional capital, which may not be available on acceptable terms, or at all.

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

Our ability to commercialize drugs that we develop with our partners and 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. If our partners fail to perform as we expect, our potential for revenue from drugs developed through our strategic alliances with them could be dramatically reduced.

Our focus on the discovery 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.

Our focus on drug discovery and development directed at the cytoskeleton is novel and unique to us. 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 cytoskeletal proteins and pathways that our drug candidates seek to modulate. As a result, we cannot be certain that our drug candidates will appropriately modulate targeted cytoskeletal proteins and pathways or produce commercially viable drugs that safely and effectively treat cancer, congestive heart failure and potentially other diseases. In addition, if we are successful in developing and receiving regulatory approval for a commercially viable drug for the treatment of one disease focused to the cytoskeleton, 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 viable drugs, we will not achieve commercial success.

Our proprietary rights may not adequately protect our technologies and drug candidates.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our technologies and drug candidates as well as successfully defending these patents against third-party challenges. We will only be able to protect our technologies and drug candidates from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States. The patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. 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;
- it is possible that none of our pending patent applications or the pending patent applications of our licensors will result in issued patents;
- our issued patents and issued patents of our licensors may not provide a basis for commercially viable drugs, or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties;
- we may not develop additional proprietary technologies or drug candidates that are patentable; or
- the patents of others may have an adverse effect on our business.

We also rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. While we use reasonable efforts to protect our trade secrets, our or our strategic partners' employees, consultants, contractors, or scientific and other advisors may unintentionally or willfully disclose our information to competitors. If we were to enforce 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 may independently develop equivalent knowledge, methods and know-how, it will be more difficult for us to enforce our patent 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 intellectual property rights of third parties, such litigation 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 sell such drugs without infringing the patents or other proprietary rights of third parties. Numerous United States and foreign issued patents and pending applications, which are owned by third parties, exist in the areas that we are exploring. 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 could also be existing patents of which we are not aware that our drug candidates may inadvertently infringe.

In particular, we are aware of an issued United States patent and at least one pending United States patent application assigned to Curis, Inc. relating to certain compounds in the quinazolinone class. SB-715992 falls into this class of compounds. The Curis patent claims a method of use for inhibiting signaling by what is called the hedgehog pathway using certain such compounds. We are also aware that Curis has pending applications in Europe, Japan, Australia and Canada with claims covering compositions of certain quinazolinone compounds. Curis or a third party may assert that the sale of SB-715992 may infringe one or more of these or other patents. We believe that we have valid defenses against an assertion that SB-715992 infringes the Curis patent. However, we cannot guarantee that a court would find such defenses valid. We have not attempted to obtain a license to this patent. If we decide to obtain a license to this patent, we cannot guarantee that we would be able to obtain such a license on commercially reasonable terms, or at all.

In addition, we are aware of various issued United States patents and pending United States and foreign patent applications assigned to Cellomics, Inc. relating to an automated method for analyzing cells. One of these applications is proceeding to grant in Europe. Cellomics or a third party may assert that our Cytometrix technologies fall within the scope of and thus, infringe, one or more of these patents. We have received a letter from Cellomics notifying us that Cellomics believes we may be practising one or more of their patents and that Cellomics offers a use license for such patents through its licensing program. We believe that we have valid defenses to such an assertion. Moreover, the grant of the European patent may be opposed by one or more parties. However, we cannot guarantee that a court would find such defenses valid or that such opposition would be successful. If we decide to obtain a license to these patents, we cannot guarantee that we would be able to obtain such a license on commercially reasonable terms, or at all.

If a third party claims that we infringe on their patents or other proprietary rights, we could face a number of issues that could seriously harm our competitive position, including:

- infringement and other intellectual property claims which, with or without merit, can be costly and time consuming to litigate and can 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 upon 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.

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 novel small molecule drugs focused on the cytoskeleton 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 additional management and scientific personnel.

Our future funding requirements will depend on many factors, including:

- the rate of progress and cost of our clinical trials and other research and development activities;
- 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 and timing of seeking and obtaining regulatory approvals;
- 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 finance future cash needs primarily through public or private equity offerings, debt financings or 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.

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. To commercialize our drugs that we determine not to market on our own, we will depend on strategic alliances with third parties, such as GSK, which have established distribution systems and direct sales forces. If we are unable to enter into such arrangements on acceptable terms, we may not be able to successfully commercialize such drugs.

We plan to commercialize drugs on our own, with or without a partner, 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, or at all, which could make us unable to commercialize our drugs.

To the extent that we are not successful in commercializing any drugs ourselves or through a strategic alliance, our product revenues will suffer, we will incur significant additional losses and the price of our common stock will be negatively affected.

We have no manufacturing capacity, depend on a single manufacturer to produce our clinical trial drug supplies, and anticipate continued reliance on third-party 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 under development. We have no experience in drug formulation or manufacturing, and we lack the resources and the capabilities to manufacture any of our drug candidates on a clinical or commercial scale. As a result, we currently rely on a single contract manufacturer to supply, store and distribute drug supplies for our clinical trials and anticipate future reliance on a limited number of third-party manufacturers until we are able to expand our operations to include manufacturing capacities. Any performance failure on the part of our existing or future manufacturers could delay clinical development or regulatory approval of our drug candidates or commercialization of our drugs, producing additional losses and depriving us of potential product revenues.

Our drug candidates require precise, high quality manufacturing. Our failure or our contract manufacturer's failure to achieve and maintain high manufacturing standards, including the incidence of manufacturing errors, could result in patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could seriously hurt our business. Contract manufacturers often encounter difficulties involving production yields, quality control and quality assurance, as well as shortages of qualified personnel. These manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the United States Drug Enforcement Agency, or DEA, and corresponding state agencies to ensure strict compliance with

current Good Manufacturing Practice, or GMP, and other applicable government regulations and corresponding foreign standards; however, we do not have control over third-party manufacturers' compliance with these regulations and standards. If one of our manufacturers fails to maintain compliance, the production of our drug candidates could be interrupted, resulting in delays, additional costs and potentially lost revenues. Additionally, our third-party manufacturer must pass a preapproval inspection before we can obtain marketing approval for any of our drug candidates in development.

If the FDA or other regulatory agencies approve any of our drug candidates for commercial sale, we will need to manufacture them in larger quantities. To date, our drug candidates have been manufactured in small quantities for preclinical testing and clinical trials and we may not be able to successfully increase the manufacturing capacity, whether in collaboration with third-party manufacturers or on our own, for any of our drug candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If we are unable to successfully increase the manufacturing capacity for a drug candidate, the regulatory approval or commercial launch of any related drugs may be delayed or there may be a shortage in supply. Even if any third-party 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 such innovation.

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. We currently rely on a single third-party manufacturer as the sole supply source for our drug candidates. In the event of a natural disaster, business failure, strike or other difficulty, we may be unable to replace such third-party manufacturer in a timely manner and the production of our drug candidates would be interrupted, resulting in delays and additional costs.

Switching manufacturers may be difficult because the number of potential manufacturers is limited and the FDA must approve any replacement manufacturer prior to manufacturing our drug candidates. Such approval would require new testing and compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our drug candidates after receipt of FDA approval. It may be difficult or impossible for us to find a replacement manufacturer on acceptable terms quickly, or at all.

We expect to expand our development, clinical research 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 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.

The failure to attract and retain skilled personnel could impair our drug development and commercialization efforts.

Our performance is substantially dependent on the performance of our senior management and key scientific and technical personnel, particularly James H. Sabry, M.D., Ph.D., our President and Chief Executive Officer and Robert I. Blum, our Executive Vice President, Corporate Development

and Finance and Chief Financial Officer. Our employment agreements with these individuals and our other personnel are terminable at will with short or no notice. We carry key person life insurance on James H. Sabry, M.D., Ph.D. The loss of the services of any member of our senior management, 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 identification of suitable replacements, and could have a material adverse effect on our business, operating results and financial condition. 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, we believe that 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. The inability to attract and retain sufficient scientific, technical and managerial personnel could limit or delay our product development efforts, which would adversely affect the development of our drug candidates and commercialization of our potential drugs and growth of our business.

Risks Related to Our Industry

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

We compete with companies that are developing drug candidates that focus on the cytoskeleton, as well as companies that have developed drugs or are developing alternative drug candidates for cancer and cardiovascular and infectious diseases. For example, with respect to cancer, Bristol-Myers Squibb's Taxol, Aventis Pharmaceuticals Inc.'s Taxotere, and generic equivalents of Taxol are currently available on the market and commonly used in cancer treatment. Furthermore, we are aware that Merck & Co., Inc. and Bristol-Myers Squibb are conducting KSP-directed research. In addition, Bristol-Myers Squibb, Novartis and other pharmaceutical and biopharmaceutical companies are developing other approaches to inhibiting mitosis. With respect to congestive heart failure, we are aware of a potentially competitive approach being developed by Orion in collaboration with Abbott Laboratories.

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;
- initiate or withstand substantial price competition more successfully than we can;
- have greater success in recruiting skilled scientific workers from the limited pool of available talent;
- more effectively negotiate third-party licenses and strategic alliances; and
- take advantage of acquisition or other opportunities more readily than we can.

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, as 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;
- 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 effective 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 advances in existing technological approaches or the development of new or different approaches, potentially eliminating the advantages in our drug discovery process that we believe we derive from our research approach and proprietary technologies.

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

The research, testing, manufacturing, selling and marketing of drug candidates 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 NDA from the FDA. Neither we nor our partners have received marketing approval for any of our drug candidates. Obtaining a NDA can be a lengthy, expensive and uncertain process. In addition, failure to comply with the FDA and other applicable foreign and United States 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 a NDA or NDA supplement is never guaranteed, and the approval process typically takes several years and is extremely expensive. The FDA also has substantial discretion in the drug approval process. Despite the time and expense 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 of preclinical studies and clinical trials that will be required for FDA approval 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 can delay, limit or deny approval of a drug candidate for many reasons, including:

- a drug candidate may not be safe or effective;
- FDA officials may not find the data from preclinical testing and clinical trials sufficient;
- the FDA might not approve our or our third-party manufacturer’s processes or facilities; or
- the FDA may change its approval policies or adopt new regulations.

If we or our partners receive regulatory approval for our drug candidates, we will also be subject to ongoing FDA obligations and continued regulatory review, such as continued safety reporting requirements, and we may also be subject to additional FDA 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 also be subject to limitations on the indicated uses for which the drug may be marketed or contain requirements for potentially costly post-marketing follow-up studies. In addition, if the FDA 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, may result in restrictions on the marketing of the drug, and could include withdrawal of the drug from the market.

The FDA's policies 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 could 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, 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, physicians may elect not to recommend these drugs for a variety of reasons including:

- timing of market introduction of competitive drugs;
- demonstration of clinical safety and efficacy;
- cost-effectiveness;
- availability of reimbursement from health maintenance organizations and other third-party payors;
- convenience and ease of administration;
- prevalence and severity of adverse side effects;
- other potential advantages over alternative treatment methods; and
- 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.

There is significant uncertainty related to the coverage and reimbursement of newly approved drugs. The commercial success of our potential drugs in both domestic and international markets is substantially dependent on whether third-party coverage and reimbursement is available for the ordering of our potential drugs by the medical profession for use by their patients. 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 potential drugs. They may not view our potential drugs as cost-effective and reimbursement may not be available to consumers or may not be sufficient to allow our potential drugs to be marketed on a competitive basis. Likewise, legislative or regulatory efforts to control or reduce healthcare costs or reform government healthcare programs could result in lower prices or rejection of 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 claims and may not be able to obtain adequate insurance.

Because we conduct clinical trials in humans, we face the risk that the use of our drug candidates will result in adverse effects. We currently maintain product liability insurance in the amount of $10.0 million with a $5,000 deductible per occurrence, however, such liability insurance excludes coverage of liability resulting from clinical trials. We cannot predict the possible harms or side effects that may result from our clinical trials. We may not have sufficient resources to pay for any liabilities resulting from a claim excluded from, or beyond the limit of, our insurance coverage.

In addition, once we have commercially launched drugs based on our drug candidates, we will face exposure to product liability claims. This risk exists even with respect to those drugs that are approved for commercial sale by the FDA and manufactured in facilities licensed and regulated by the FDA. 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. Even if we were 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 litigated product as well as our other potential drugs. Moreover, product recalls may be issued at our discretion or at the direction of the FDA, other governmental agencies or other companies having regulatory control for drug sales. If product recalls occur, such recalls are generally expensive and often have an adverse effect on the image of the drugs being recalled as well as the reputation of the drug's developer or manufacturer.

We may be subject to damages resulting from claims that our employees or we 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 such 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 severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

We use hazardous chemicals and radioactive and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development processes involve the controlled use of hazardous materials, including chemicals, 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 may be expensive, and current or future environmental regulations may impair our research, development and production efforts.

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 all damages and other liabilities arising out of our development activities or drugs produced in connection with these strategic alliances.

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

Important documents and records, such as hard copies of our laboratory books and records for our drug candidates and compounds, 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, drought or flood, or localized extended outages of critical utilities or transportation systems, we do not have a formal business continuity or disaster recovery plan, and could therefore experience a significant business interruption. In addition, California from time to time has experienced shortages of water, electric power and natural gas. Future shortages and conservation measures could disrupt our operations and cause expense, thus adversely affecting our business and financial results.

Risks Related To Our Common Stock and This Offering

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

Prior to this offering, you could not buy or sell our common stock publicly. An active public market for our common stock may not develop or be sustained after this offering. We will negotiate and determine the initial public offering price with the representatives of the underwriters based on several factors. This price may vary from the market price of our common stock after this offering. You may be unable to sell your shares of common stock at or above the initial offering price due to fluctuation in the market price of the common stock arising from changes in our operating performance or prospects. In addition, the stock market, particularly in recent years, has experienced significant volatility particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks often does not relate to the operating performance of the companies represented by the stock. Factors that could cause this volatility in the market price of our common stock include:

- results from and any delays in the clinical trials programs, including the clinical trials for SB-715992 and SB-743921, our drug candidates for the treatment of cancer;
- failure or delays in entering additional drug candidates into clinical trials, including CK-1213296, our drug candidate for the treatment of acute congestive heart failure;
- failure or discontinuation of any of our research programs;
- delays in establishing new strategic alliances;
- announcements concerning our strategic alliances with GSK or AstraZeneca or future strategic alliances;

- delays in the development of our drug candidates and commercialization of our potential drugs by GSK or any future partners or otherwise;
- market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts' reports or recommendations;
- actual and 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 reimbursement policies;
- FDA or other United States or foreign regulatory actions affecting us or our industry;
- litigation or public concern about the safety of our drug candidates or drugs; and
- additions or departures of key personnel.

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

If the 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.

Our executive officers, directors and their affiliates will beneficially own or control approximately 37.8 percent of the outstanding shares of our common stock (after giving effect to the conversion of all outstanding convertible preferred stock and the exercise of all outstanding vested and unvested options and warrants), following the completion of this offering and the private placement. 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.

Future sales of common stock by our existing stockholders may cause our stock price to fall.

The market price of our common stock could decline as a result of sales by our existing stockholders of shares of common stock in the market after this offering, or the perception that these sales could occur. These sales might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate. The lock-up agreements delivered by our executive officers and directors and substantially all of our stockholders and optionholders provide that Goldman, Sachs & Co., in its sole discretion, may release those parties, at any time or from time to time and without notice, from their obligation not to dispose of shares of common stock for a period of 180 days after the date of this prospectus. Goldman, Sachs & Co. has no pre-established conditions

to waiving the terms of the lock-up agreements, and any decision by it to waive those conditions would depend on a number of factors, which may include market conditions, the performance of the common stock in the market and our financial condition at that time. Please see "Shares Eligible for Future Sale."

We will have broad discretion in how we use the proceeds of this offering, and we may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering. We currently intend to use the net proceeds to:

- co-fund certain later-stage development activities, if we exercise our option under our strategic alliance with GSK, for either or both of SB-715992 or SB-743921;
- continue preclinical activities and conduct clinical development of CK-1213296, our drug candidate for the treatment of acute congestive heart failure;
- advance our other research programs;
- scale up our development, sales, marketing and manufacturing operations; and
- in-license or develop technology and acquire or invest in businesses, products or technologies that we believe are complementary to our own.

We have not yet finalized the amount of net proceeds that we will use specifically for each of these purposes. We may use the net proceeds for corporate purposes that do not yield a significant return or any return at all for our stockholders.

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 SEC regulations and Nasdaq National Market 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 such costs. 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 resources 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, regulatory authorities may initiate legal proceedings against us and we may be harmed.

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. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Investors in this offering will pay a much higher price than the book value of our common stock.

If you purchase common stock in this offering, you will pay more for your shares than the amounts paid by existing stockholders for their shares. You will incur immediate and substantial dilution of $8.17 per share, representing the difference between our pro forma net tangible book value per share after giving effect to this offering and the initial public offering price of $13.00 per share. In the past, we issued options and warrants to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding options or warrants are ultimately exercised, you will sustain further dilution.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” contains forward-looking statements.

Forward-looking statements include, but are not limited to, statements about:

- the initiation, progress, timing and completion of preclinical research, development, and clinical trials for our drug candidates and potential drug candidates;
- the time and costs involved in obtaining regulatory approvals;
- delays that may be caused by evolving requirements of regulatory agencies;
- the number of drug candidates we pursue;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others, including the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims;
- our options to co-fund the development of one or both of SB-715992 and SB-743921;
- the level of funding we may provide for future drug candidates, including CK-1213296, our drug candidate for the treatment of acute congestive heart failure;
- our plans or ability to establish sales, marketing or manufacturing capabilities and to achieve market acceptance for drug candidates;
- our ability to establish, enforce and maintain selected strategic alliances and activities required for commercialization of our drug candidates;
- the acquisition of technologies, products and other business opportunities that require financial commitments;
- our estimates of future performance; and
- our estimates regarding anticipated operating losses, future revenues, if any, from successful development of our drug candidates and commercialization of our potential drugs, capital requirements and our needs for additional financing.

These statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks and other factors include those listed under “Risk Factors” and elsewhere in this prospectus. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “should,” “expects,” “intends,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue” or the negative of these terms or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We do not intend to update any of the forward-looking statements after the date of this prospectus or to conform these statements to actual results. Neither the Private Securities Litigation Reform Act of 1995 nor Section 27A of the Securities Act of 1933 provides any protection for statements made in this prospectus.

USE OF PROCEEDS

Our net proceeds from the sale of 6,900,000 shares of common stock in this offering are estimated to be approximately $81.5 million, based on the initial public offering price of $13.00 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses, which are payable by us. In addition, we will receive approximately $7.0 million of additional proceeds as a result of the private placement to an affiliate of GSK.

We intend to use the proceeds of this offering and the private placement for general corporate purposes, including:

- approximately $15.0 million to co-fund certain later-stage development activities, if we exercise our option under our strategic alliance with GSK, for either or both of SB-715992 or SB-743921;
- approximately $15.0 million to continue preclinical activities and conduct clinical development of CK-1213296, our drug candidate for the treatment of acute congestive heart failure;
- approximately $10.0 million to advance our other research programs;
- approximately $5.0 million to scale up our development, sales, marketing and manufacturing operations; and
- approximately $5.0 million to potentially in-license or develop technology and acquire or invest in businesses, products or technologies that we believe are complementary to our own.

We believe that the net proceeds of this offering and the private placement, our existing cash resources, future payments from GSK and AstraZeneca, proceeds from equipment financings and interest earned on investments will be sufficient to meet our projected operating requirements for at least the next 24 months.

Although we periodically engage in preliminary discussions with respect to acquisitions, we are not currently a party to any agreements or commitments and we have no understandings with respect to any acquisitions.

The amounts and timing of our actual expenditures depend on several factors, including the progress of our research and development efforts and the amount of cash used by our operations. We have not determined the amount or timing of the expenditures in the areas listed above. Pending their use, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing instruments.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We do not anticipate paying any cash dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business.

CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2003:

- on an actual basis;
- on a pro forma basis, reflecting the conversion of all of our preferred stock into an aggregate of 17,099,624 shares of common stock immediately upon the closing of this offering; and
- on a pro forma as adjusted basis, to give effect to:
  - our sale of 6,900,000 shares of common stock in this offering at the initial public offering price of $13.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us; and
  - our sale of 538,461 shares of common stock to an affiliate of GSK based on the initial public offering price of $13.00 per share for aggregate cash proceeds of approximately $7.0 million.

You should read this table in conjunction with the sections of this prospectus entitled “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and with our financial statements and related notes.

	As of December 31, 2003		Pro Forma As Adjusted
	Actual	Pro Forma	
	(in thousands)		
Long-term portion of equipment financing lines	$ 8,075	$ 8,075	$ 8,075
Convertible preferred stock, $0.001 par value, 37,300,000 shares authorized, 34,124,308 shares issued and outstanding, actual, no shares issued and outstanding pro forma and pro forma as adjusted	133,172	—	—
Stockholders’ equity (deficit):			
Common stock, $0.001 par value, 61,500,000 shares authorized, 2,307,258 shares issued and outstanding, actual; 19,406,882 shares outstanding pro forma and 26,845,343 shares outstanding pro forma as adjusted	2	19	27
Additional paid-in capital	5,646	138,801	227,338
Deferred stock-based compensation	(3,651)	(3,651)	(3,651)
Accumulated other comprehensive income	46	46	46
Deficit accumulated during the development stage	(94,074)	(94,074)	(94,074)
Total stockholders’ equity (deficit)	(92,031)	41,141	129,686
Total capitalization	$ 49,216	$ 49,216	$137,761

The actual number of shares of common stock shown as issued and outstanding in the table above excludes:

- 2,244,378 shares subject to stock options outstanding as of December 31, 2003;
- 390,677 shares reserved for issuance under our 1997 Stock Option/ Stock Issuance Plan as of December 31, 2003;
- 100,000 shares of common stock issuable upon the exercise of warrants to purchase common stock and 181,983 shares of preferred stock issuable upon the exercise of warrants to purchase preferred stock (which will become exercisable for 90,991 shares of common stock upon consummation of this offering) outstanding at December 31, 2003; and
- 2,100,000 shares of common stock to be reserved for future issuance under our 2004 Equity Incentive Plan and our 2004 Employee Stock Purchase Plan.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the initial public offering price per share and the pro forma as adjusted net tangible book value per share of common stock upon the completion of this offering and the private placement. Our historical net tangible book value as of December 31, 2003 was approximately $(92.0) million or $(39.89) per share. Pro forma net tangible book value per share represents our total tangible assets less total liabilities divided by the pro forma total number of shares of common stock outstanding after giving effect to the automatic conversion of all shares of our outstanding convertible preferred stock. Dilution in pro forma as adjusted net tangible book value per share represents the difference between the amount per share paid by purchasers of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after the closing of this offering.

After giving effect to the sale of the shares of common stock and our sale of 538,461 shares of common stock to an affiliate of GSK based on the initial offering price of $13.00 per share for aggregate cash proceeds of approximately $7.0 million and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2003 would have been approximately $129.7 million, or $4.83 per share of common stock. This represents an immediate increase in pro forma net tangible book value of $2.71 per share to existing stockholders and an immediate dilution of $8.17 per share to new investors purchasing shares of common stock in this offering at the initial offering price.

The following table illustrates this dilution on a per share basis:

Initial public offering price per share		$13.00
Historical net tangible book value per share as of December 31, 2003	$(39.89)	
Increase per share due to assumed conversion of all shares of convertible preferred stock	42.01	
Pro forma net tangible book value per share as of December 31, 2003	2.12	
Increase per share attributable to new investors	2.71	
Pro forma as adjusted net tangible book value per share after this offering and the private placement		4.83
Dilution per share to new investors in this offering		$ 8.17

The following table summarizes as of December 31, 2003 the number of shares of our common stock purchased from us, the total consideration paid to us, and the average price per share paid to us by existing stockholders, new investors purchasing shares of our common stock in this offering and an affiliate of GSK in the private placement before deducting underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	19,406,882	72%	$135,064,385	58%	$ 6.96
New investors	6,900,000	26	89,700,000	39	13.00
New investment by an affiliate of GSK	538,461	2	7,000,000	3	13.00
Total	26,845,343	100%	$231,764,385	100%	

The above discussion and tables are based on 2,307,258 shares of common stock issued and outstanding as of December 31, 2003 and excludes:

- 2,244,378 shares subject to stock options outstanding as of December 31, 2003;
- 390,677 shares reserved for issuance under our 1997 Stock Option/ Stock Issuance Plan as of December 31, 2003;
- 100,000 shares of common stock issuable upon the exercise of warrants to purchase common stock and 181,983 shares of preferred stock issuable upon the exercise of warrants to purchase preferred stock (which will become exercisable for 90,991 shares of common stock upon consummation of this offering) outstanding at December 31, 2003; and
- 2,100,000 shares of common stock to be reserved for future issuance under our 2004 Equity Incentive Plan and our 2004 Employee Stock Purchase Plan.

Assuming the exercise in full of all options and warrants outstanding as of December 31, 2003, the number of shares purchased by existing stockholders would be increased by 2,435,369 shares to 21,842,251 shares, total consideration paid by them would be increased by approximately $2,828,000 to $137,892,000 and the average price per share paid by them would be decreased by $0.65 per share to $6.31 per share.

The exercise of options and warrants, all of which have an exercise price less than the initial public offering price would increase the dilution to new investors an additional $0.30 per share, to $8.47 per share.

If the underwriters exercise their over-allotment option in full, the percentage of shares of common stock held by existing stockholders will be approximately 72% of the total number of shares of our common stock outstanding after this offering, and the number of shares held by new investors will be increased to 8,473,461, or approximately 28% of the total number of shares of our common stock outstanding after this offering.

SELECTED FINANCIAL DATA

The following selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" following this section and our financial statements and related notes included in the back of this prospectus. See also Note 10 to our financial statements for information regarding pro forma common shares outstanding and pro forma net loss per share. The selected financial data for the years ended December 31, 1999 and 2000 and as of December 31, 1999, 2000 and 2001 are derived from our audited financial statements not included in this prospectus. The selected financial data for the years ended December 31, 2001, 2002 and 2003 and as of December 31, 2002 and 2003 are derived from our audited financial statements included in this prospectus. The historical results are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31,				
	1999	2000	2001	2002	2003
Statement of Operations Data:					
Revenues:					
Research and development revenues from related party	$ —	$ —	$ 6,764	$ 8,470	$ 7,703
Research and development and grant revenues	—	—	302	126	74
License revenues from related party	—	—	1,400	2,800	2,800
Total revenues	—	—	8,466	11,396	10,577
Operating expenses:					
Research and development	6,103	10,403	20,961	28,424	34,004
General and administrative	1,515	3,390	5,897	6,953	9,163
Total operating expenses	7,618	13,793	26,858	35,377	43,167
Operating loss	(7,618)	(13,793)	(18,392)	(23,981)	(32,590)
Interest and other income	378	902	3,232	2,232	2,395
Interest and other expense	(101)	(188)	(714)	(1,331)	(2,490)
Net loss	$(7,341)	$(13,079)	$(15,874)	$(23,080)	$(32,685)
Net loss per common share:					
Basic and diluted	$ (9.44)	$ (13.55)	$ (11.18)	$ (13.25)	$ (17.10)
Weighted average shares used in computing net loss per common share, basic and diluted	778	965	1,420	1,742	1,911
Pro forma net loss per common share, basic and diluted (unaudited)					$ (1.81)
Weighted average shares used in computing pro forma net loss per common share, basic and diluted (unaudited)					18,025

	As of December 31,				
	1999	2000	2001	2002	2003
Balance Sheet Data:					
Cash, cash equivalents, short-term and long-term investments	$14,823	$ 56,787	$ 62,314	$ 30,461	$ 43,045
Restricted cash	225	225	6,236	13,106	7,199
Working capital	12,888	42,781	43,887	18,571	27,619
Total assets	17,644	61,038	79,019	56,168	62,873
Long-term portion of equipment financing lines	892	1,079	3,525	7,077	8,075
Deficit accumulated during the development stage	(9,356)	(22,435)	(38,309)	(61,389)	(94,074)
Total convertible preferred stock	24,604	79,462	93,304	93,304	133,172
Total stockholders' deficit	$ (9,121)	$(21,818)	$(37,352)	$(60,588)	$ (92,031)

MANAGEMENT'S DISCUSSION AND ANALYSIS

OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes to those statements included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. As a result of many factors, such as those set forth under the section entitled "Risk Factors" and elsewhere in this prospectus, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a leading biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule drugs specifically targeting the cytoskeleton. Employing our cell biology driven approach and proprietary technologies we have enhanced the speed, efficiency and yield of our drug discovery and development process. We have two drug candidates for the treatment of cancer, one which is in Phase II clinical trials and the other which is expected to enter Phase I clinical trials in early 2004. We are also pursuing CK-1213296 as a drug candidate for the treatment of acute congestive heart failure and we expect to file an IND and initiate clinical trials for that compound in the second half of 2004. In addition, we are pursuing more than ten research programs addressing a number of therapeutic areas.

Since our inception in August 1997, we have incurred significant net losses. As of December 31, 2003, we had an accumulated deficit of $94.1 million. We expect to incur substantial and increasing losses for the next several years as:

- one or both of SB-715992 and SB-743921 enter later-stage development and commercialization, if we exercise our options to co-fund the development of, and co-promote, these drug candidates under our strategic alliance with GSK;
- we advance CK-1213296 for the treatment of acute congestive heart failure and other drug candidates through clinical trials;
- we expand our research programs and further develop our proprietary drug discovery technologies; and
- if we elect to fund development or commercialization of any drug candidate.

We intend to pursue selective strategic alliances to enable us to maintain financial and operational flexibility.

A Phase II clinical trial program for SB-715992 for the treatment of cancer commenced in the fourth quarter of 2003. We anticipate that this Phase II program will be completed in 2005. A Phase III clinical trial program will then be initiated. We expect that it will take several years before we can commercialize SB-715992. Accordingly, we cannot reasonably estimate when and to what extent SB-715992 will generate revenues or material net cash flows, which may vary widely depending on numerous factors, including the effectiveness and safety profile of the drug, market acceptance, and then-prevailing reimbursement policies, competition and other market conditions. GSK funds all research and development costs associated with SB-715992 pursuant to our strategic alliance. We expect to determine whether and to what extent we will exercise our co-funding option during the conduct of our clinical trials for this drug candidate, taking into consideration clinical results and our business, finances and prospects at that time. If we exercise our option to co-fund certain later stage development activities associated with SB-715992, our expenditures relating to research and development of this drug candidate will increase significantly.

We expect that a Phase I clinical trial for SB-743921 will commence in early 2004. The clinical trial program for SB-743921 will proceed for several years, and we will not be in a position to generate any revenues or material net cash flows from the drug candidate until the program is

successfully completed, regulatory approval is achieved and a drug is commercialized. SB-743921 is at too early a stage of development for us to predict when this may occur. GSK funds all research and development costs associated with SB-743921. If we exercise our option to co-fund certain later-stage development activities associated with SB-743921, our expenditures relating to research and development of this drug candidate will increase significantly.

We plan to file an IND and initiate Phase I clinical trials for CK-1213296 in the second half of 2004. As with our other drug candidates, CK-1213296 is at too early a stage of development for us to predict if and when we will be in a position to generate any revenues or material net cash flows from the drug candidate. We currently fund all research and development costs associated with CK-1213296. For the years ended December 31, 2001, 2002 and 2003 we incurred costs of approximately $6.4 million, $8.8 million and $11.4 million, respectively, for research and development activities relating to our congestive heart failure program that gave rise to CK-1213296. We anticipate that our expenditures relating to research and development of CK-1213296 will increase significantly as we advance this drug candidate into clinical development.

The successful development of our drug candidates is highly uncertain. We cannot estimate with certainty or know the exact nature, timing and estimated costs of the efforts necessary to complete the development of our drug candidates or the date of completion of these development efforts. We cannot estimate with certainty any of the foregoing due to the numerous risks and uncertainties associated with developing our drug candidates, including:

- the uncertainty of the timing of completion of patient registration in our pivotal Phase III clinical trials;
- the possibility of delays in the collection of clinical trial data and the uncertainty of the timing of the interim analyses of our pivotal Phase III clinical trials;
- the uncertainty of clinical trial results;
- extensive governmental regulation, both foreign and domestic, for approval of new therapies; and
- the uncertainty related to the completion of construction and qualification of a commercial scale manufacturing facility.

If we fail to complete the development of our drug candidates in a timely manner, it could have a material adverse effect on our operations, financial position and liquidity. In addition, any failure by us to obtain, or any delay in obtaining, regulatory approvals could have a material adverse effect on our results of operations. A further discussion of the risks and uncertainties associated with completing our projects on schedule, or at all, and certain consequences of failing to do so are set forth in the risk factors entitled *"We have never generated, and may never generate, revenues from commercial sales of our drugs and we may not have drugs to market for several years, if ever," "Clinical trials may fail to demonstrate the safety and efficiency of our drug candidates, which could prevent or significantly delay completion of clinical development and regulatory approval"* and *"Clinical trials are expensive, time consuming and subject to delay,"* as well as other risk factors.

To date, we have funded our operations primarily through the sale of equity securities, non-equity payments from GSK, capital lease financings, interest on investments and government grants. We received net proceeds from the sale of equity securities of $39.9 million in 2003, $13.8 million in 2001, $54.9 million in 2000, $19.3 million in 1999 and $5.3 million in 1998. Under our strategic alliance with GSK, GSK has made a $14.0 million upfront cash payment and an initial $14.0 million investment in our equity. GSK has also committed to reimburse FTEs performing research in connection with the strategic alliance and to make additional milestone payments and pay royalties based on product sales. As of December 31, 2003, we have received $17.2 million in FTE reimbursement and $3.2 million in milestone payments from GSK. We received $2.0 million, $6.4 million, $3.5 million, $0.6 million and $1.3 million under equipment financing arrangements in

the years ending December 31, 2003, 2002, 2001, 2000, and 1999, respectively. Interest earned on investments in the years ending December 31, 2003, 2002, 2001, 2000 and 1999 was $2.4 million, $2.2 million, $3.1 million, $0.8 million and $0.3 million, respectively. Grant revenues were $0.3 million and $0.1 million in 2001 and 2002, respectively.

GSK has also committed to reimburse FTEs through the end of the five-year research term of the strategic alliance, and to make additional payments upon the achievement of certain precommercialization milestones. GSK has agreed to fund worldwide development and commercialization of drug candidates arising from our strategic alliance. We will earn royalties from sales of any resulting drugs. We retain a product-by-product option to co-fund certain later-stage development activities, thereby potentially increasing our royalties and affording co-promotion rights in North America. In the event we exercise our co-promotion option, we are entitled to receive reimbursement from GSK for certain sales force costs we incur in support of our commercial activities.

Revenues

Our current revenue sources are limited, and we do not expect to generate any direct revenue from product sales for several years. We currently recognize revenues from our strategic alliance with GSK for contract research activities, which we record as related expenses are incurred. Charges to GSK are based on negotiated rates which are intended to approximate costs for our FTEs performing research under the strategic alliance and our out-of-pocket expenses. GSK has paid us an upfront licensing fee, which we recognize ratably over the five-year research term of the strategic alliance. We may receive additional payments from GSK upon achieving certain precommercialization milestones. Milestone payments are non-refundable and recognized as revenue when earned, as evidenced by achievement of the specified milestones and the absence of ongoing performance obligations. We record amounts received in advance of performance as deferred revenue. None of the revenues recognized to date are refundable if the relevant research effort is not successful. Because a substantial portion of our revenues for the foreseeable future will depend on achieving research, development and other precommercialization milestones, our results of operations may vary substantially from year to year. In the event, we exercise our co-promotion option, we are entitled to receive reimbursement from GSK for certain sales force costs we incur in support of our commercial activities.

We expect that ultimately our future revenues will be derived from royalties on sales from drugs licensed to GSK under our strategic alliance and from those licensed to future partners, as well as from direct sales of our drugs. We retain a product-by-product option under our strategic alliance with GSK to co-fund certain later-stage development activities with GSK under our strategic alliance, thereby potentially increasing our royalties and affording co-promotion rights in North America.

Research and Development

We incur research and development expenses associated with both partnered and unpartnered research activities, as well as the development and expansion of our drug discovery technologies. Research and development expenses relating to our strategic alliance with GSK consist primarily of costs related to research and screening, lead optimization and other activities relating to the identification of compounds for development as mitotic kinesin inhibitors for the treatment of cancer. These costs are reimbursed by GSK on a FTE basis. GSK funds all costs related to preclinical and clinical development of the compounds that are selected for development. Accordingly, we do not currently incur research and development expenses related to the ongoing development of SB-715992 and SB-743921. Under our strategic alliance, we have an option on a product-by-product basis to co-fund certain later-stage development costs for each of these drug candidates. If we exercise an option, our research and development expenses will increase significantly. Research and development expenses related to any development and commercialization activities we elect to fund would consist primarily of employee compensation, supplies and materials, costs for consultants and contract research, facilities costs, and depreciation of equipment. We expect to incur research and

development expenses to conduct clinical trials for our drug candidate for the treatment of acute congestive heart failure, CK-1213296, and in connection with our more than ten research programs in other diseases, as well as the continued advancement of our PUMA system, Cytometrix technologies and our other existing and future drug discovery technologies. During the period from inception through December 31, 2003, we incurred costs of approximately $33.0 million for research and development activities relating to the discovery of mitotic kinesin inhibitors, $29.2 million for our congestive heart failure program, $24.9 million for our PUMA system and Cytometrix technologies and $13.7 million for all other programs.

General and Administrative Expenses

General and administrative expenses consist primarily of compensation for employees in executive and operational functions, including finance, business development and corporate development. Other significant costs include facilities costs and professional fees for accounting and legal services, including legal services associated with obtaining and maintaining patents. After completion of the offering made by this prospectus, we anticipate incurring increases in general and administrative expenses, such as increased costs for insurance and investor relations associated with operating as a publicly traded company. These increases will also likely include the hiring of additional personnel.

Stock Compensation

In connection with the grant of stock options to employees and non-employees, we recorded deferred stock-based compensation as a component of stockholders' deficit. Deferred stock compensation for options granted to employees is the difference between the fair value of our common stock on the date such options were granted and their exercise price. Through 2002, for stock options granted to non-employees, we initially recorded on the date of grant the fair value of the options, estimated using the Black-Scholes valuation model. As the non-employee options become exercisable, we revalue the remaining unvested options, with the change in fair value from period to period represented as a change in the deferred compensation charge. Beginning in 2003, we value and recognize the stock-based compensation expense related to options granted to non-employees as the stock options are earned. We amortize this stock-based compensation as charges to operations over the vesting periods of the options, generally four years.

We recorded $4.0 million of deferred stock-based compensation and $536,000 of amortization of deferred stock-based compensation related to options granted to employees during the year ended December 31, 2003. We have recorded $736,000 of deferred stock-based compensation for the period from inception through December 31, 2003 related to options granted to non-employees through 2002. We recorded amortization of non-employee deferred compensation of $93,000, $6,000, $232,000 and $555,000 for the years ended December 31, 2001, 2002 and 2003, and for the period from August 5, 1997 (date of inception) through December 31, 2003 respectively. We recorded non-employee stock-based compensation for the year ended December 31, 2003 of $158,000. We expect the remaining $3.7 million to be amortized as follows: $1,122,000 in 2004, $942,000 in 2005, $924,000 in 2006, $413,000 in 2007 and $250,000 in 2008, respectively.

The amount of non-cash stock-based compensation expense we expect in future periods may decrease if unvested options for which deferred compensation expense has been recorded are subsequently cancelled, or may increase if we make future option grants with exercise prices below the estimated fair market value of our common stock on the date of grant.

Interest and Other Income and Expense

Interest and other income and expense consists primarily of interest income and interest expense. Interest income is generated primarily from investment of our cash reserves. Interest expense relates generally to the borrowings for capital asset financings.

Results of Operations

Years ended December 31, 2001, 2002 and 2003

Revenues

We recorded revenues of $8.5 million, $11.4 million and $10.6 million for the years ended December 31, 2001, 2002 and 2003, respectively. The increase in license revenues from our strategic alliance with GSK, which we formed in June 2001, from $1.4 million for the year ended December 31, 2001 to $2.8 million for each of the years ended December 31, 2002 and 2003 resulted from a full year of revenue recognition in 2002 and 2003 compared to a partial year of revenue recognition in 2001. Research and development and grant revenues of $7.1 million for the year ended December 31, 2001 comprised $3.5 million of reimbursement for FTEs, $2.0 million of milestone revenues, $1.3 million of research funding and $0.3 million of other revenues. Research and development and grant revenues of $8.6 million for the year ended December 31, 2002 comprised $6.7 million of reimbursement for FTEs, $1.0 million of milestone revenues, and $0.9 million of various research related revenues. The increase in FTE reimbursement resulted from a full year of FTE activity in 2002 compared to a partial year of FTE activity in 2001. Research and development and grant revenues of $7.8 million for the year ended December 31, 2003 comprised $7.1 million of reimbursement for FTEs, $0.2 million of milestone revenues, and $0.5 million of various research related expenses. The $0.4 million increase in 2003 compared to 2002 FTE reimbursement resulted from an annual expense index adjustment to the GSK FTE reimbursement effective June 20, 2003 and the initial $0.1 million FTE reimbursement from a newly negotiated collaboration with Astra Zeneca. GSK milestone revenues decreased $0.8 million in 2003 compared to 2002 and various research related expenses also decreased by $0.4 million.

Research and development expenses

Research and development expenses were $21.0 million for the year ended December 31, 2001 compared with $28.4 million for the year ended December 31, 2002. The increase in research and development expense was primarily due to increased salary and benefit costs of $3.8 million resulting from the hiring of additional research and development personnel and $1.1 million of outsourced contracted services and laboratory consumables. Research and development expenses were $34.0 million for the year ended December 31, 2003, an increase of $5.6 million from the year before. The increase was primarily due to the hiring of additional research and development personnel of $3.2 million and increased spending for contracted services and laboratory consumables of $2.4 million.

For the years ended December 31, 2001, 2002 and 2003 we incurred costs of approximately $7.9 million, $8.9 million and $6.7 million, respectively, for research and development activities relating to the discovery of mitotic kinesin inhibitors, of which GSK reimbursed $4.8 million, $7.5 million and $7.5 million, respectively. During the same periods, we incurred costs of approximately $6.4 million, $8.8 million and $11.4 million, respectively, for research and development activities relating to our congestive heart failure program, $1.8 million, $3.2 million and $7.2 million, respectively, for all other research programs and $4.9 million, $7.5 million and $8.7 million, respectively, for our PUMA system and Cytometrix technologies.

Clinical development timelines, likelihood of success and total completion costs vary significantly for each drug candidate and are difficult to estimate. We anticipate that we will make determinations as to which research programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical success of each drug candidate. The lengthy process of seeking regulatory approvals, and the subsequent compliance with applicable regulations, require the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals could cause our research and development expenditures to increase and, in turn, have a material adverse effect on our results of operations.

We expect that research and development expenditures will continue to increase substantially during 2004 and subsequent years if we exercise our options to co-fund certain later-stage research and development activities relating to SB-715992 and SB-743921, advance research and development of CK-1213296 and expand our cardiovascular clinical program, pursue additional clinical programs and build associated development of systems and infrastructure. We expect to expand the scope of our research and development programs in future periods which may result in substantial increases in research and development expenses.

General and administrative expenses

General and administrative expenses were $5.9 million for the year ended December 31, 2001 compared with $7.0 million for the year ended December 31, 2002. The increase of $1.1 million was primarily due to increased salary and benefit costs resulting from the hiring of additional general and administrative personnel. General and administrative expenses were $9.2 million for the year ended December 31, 2003, an increase of $2.2 million from the year before. The increase was primarily due to $0.3 million increased salary and benefit costs resulting from the hiring of additional general and administrative personnel and $1.5 million increased spending for contracted services.

We expect that general and administrative expenditures will continue to increase during 2004 and subsequent years due to increasing expenses associated with payroll, operating as a publicly traded company, support of our initial commercialization efforts, business development costs and expanded operational infrastructure. General and administrative expenses consist primarily of the costs of administrative personnel and related facility costs along with legal, accounting and other professional fees.

Interest and Other Income and Expense

Interest and other income (expense), net was $2.5 million for the year ended December 31, 2001 compared with $0.9 million and $(0.1) million for the years ended December 31, 2002 and 2003, respectively. The decrease in interest and other income (expense), net from the year ended December 31, 2001 as compared with the year ended December 31, 2002, was primarily due to an increase in interest and other expense from $0.7 million in 2001 to $1.3 million in 2002. The increase was due to increased debt as a result of loans entered into for capital lease financings. Interest and other income also decreased from $3.2 million in 2001 to $2.2 million in 2002. The decrease in interest income was due to lower average balances of cash, cash equivalents and investments in 2002. The $1.0 million decrease in interest and other income (expense), net from the year ended December 31, 2002 as compared with the year ended December 31, 2003 was primarily due to an increase in interest and other expenses from $1.3 million in 2002 to $2.5 million in 2003. The increase was due to increased debt as a result of loans entered into for capital lease financings. Interest and other income increased from $2.2 million to $2.4 million in 2003. The increase in interest income was due to higher average balances of cash, cash equivalents and investments in 2003.

Liquidity and Capital Resources

Our cash, cash equivalents and investments totaled $43.0 million, and our restricted cash totaled $7.2 million at December 31, 2003. From August 5, 1997, date of inception, through December 31, 2003, we funded our operations through the sale of equity securities, non-equity payments from GSK, equipment financings, government grants and interest earned on investments. We received net proceeds of $39.9 million, $13.8 million, $54.9 million, $19.3 million, and $5.3 million from the sale of equity securities in 2003, 2001, 2000, 1999, and 1998, respectively. As of December 31, 2003, we have received $36.9 million in non-equity payments from GSK. We have received $2.0 million, $6.4 million, $3.5 million, $0.6 million, and $1.3 million under equipment financing arrangements in 2003, 2002, 2001, 2000, and 1999, respectively. Grant revenues were $0.3 million and $0.1 million in 2001 and 2002, respectively. Interest earned on investments in the

years ending December 31, 2003, 2002, 2001, 2000 and 1999 was $2.4 million, $2.2 million, $3.1 million, $0.8 million and $0.3 million, respectively.

Net cash used in operating activities was $1.8 million, $22.3 million and $30.5 million for the years ended December 31, 2001, 2002 and 2003, respectively, and resulted primarily from net losses of $15.9 million, $23.1 million and $32.7 million, respectively, adjusted for non-cash depreciation and amortization and stock-based compensation expenses and changes in accounts receivable, accounts payable and accrued liabilities balances. In 2001, cash used in operating activities was significantly decreased by the receipt of the $14.0 million license fee from GSK, which is being recognized as revenue ratably over the five-year research term of the strategic alliance.

Related party accounts receivable decreased $1.1 million from 2001 to 2002. This decrease was primarily due to a GSK clinical expense reimbursement payment of $0.9 million received in 2002.

Accrued liabilities increased $1.2 million from 2001 to 2002 due to a $1.0 million increase in general accruals and a $0.2 million increase in the PTO accrual. This 2002 increase was offset by the $1.2 million decrease in accounts payable from 2001 to 2002. Accrued liabilities increased $0.8 million from 2002 to 2003 due to additional consumable expense and outside professional services. Accounts payable increased $0.5 million from 2002 to 2003 due to increased legal and patent expense.

Net cash used in investing activities of $23.5 million and $15.1 million for the years ended December 31, 2001 and 2003, respectively was primarily used to fund our purchases of investments and to a lesser extent, to fund purchases of property and equipment. Net cash provided by investing activities was $22.6 million for the year ended December 31, 2002 as a result of sales and maturities of investments to meet liquidity needs.

Net cash provided by financing activities was $17.0 million, $4.9 million and $40.2 million for the years ended December 31, 2001, 2002 and 2003, respectively. The net cash provided by financing activities was primarily attributable to the sale of preferred stock which generated $13.8 million in 2001 and $39.9 million in 2003.

As of December 31, 2003, future minimum payments under lease obligations and equipment financing lines are as follows (in thousands):

	Within one year	One to three years	Four to five years	After five years	Total
Operating leases	$1,689	$ 3,208	$ 3,168	$7,128	$15,193
Equipment financing line	2,008	3,950	4,125	—	10,083
Total	$3,697	$ 7,158	$ 7,293	$7,128	$25,276

Our long-term commitments under operating leases shown above consist of payments relating to our facility lease in South San Francisco, California, which expires in 2013. We have investigated additional office space expansion opportunities to support our administrative, research and development requirements beyond the year 2004 as we expect that by executing our strategy, we will require additional space. As of this date, we have made no formal commitments or plans to access any additional lease space.

We expect to incur substantial costs as we continue to expand our research programs and related research and development activities. Under the terms of our strategic alliance with GSK, we have options to co-fund certain later-stage development activities for SB-715992 and SB-743921. If we exercise an option, our research and development expenses will increase significantly. We expect to determine whether and to what extent we will exercise our co-funding option based on clinical results and our business, finances and prospects at the time we receive the results. Research and development expenses for our unpartnered drug discovery programs consist primarily of employee

compensation, supplies and materials, costs for consultants and contract research, facilities costs and depreciation of equipment. We expect to incur significant research and development expenses to complete Phase I and subsequent clinical trials for CK-1213296, our drug candidate for the treatment of acute congestive heart failure to advance our more than ten research programs in multiple therapeutic areas and to develop our PUMA system, Cytometrix technologies and other proprietary drug discovery technologies.

Our future capital uses and requirements depend on numerous forward-looking factors. These factors include but are not limited to the following:

- the initiation, progress, timing and completion of preclinical research, development, and clinical trials for our drug candidates and potential drug candidates;
- the time and costs involved in obtaining regulatory approvals;
- delays that may be caused by evolving requirements of regulatory agencies;
- the number of drug candidates we pursue;
- the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims;
- our options to co-fund the development of one or both of SB-715992 and SB-743921;
- the level of funding that we may provide for other current or future drug candidates, including our drug candidate for the treatment of acute congestive heart failure, CK-1213296;
- our plans or ability to establish sales, marketing or manufacturing capabilities and to achieve market acceptance for potential drugs;
- our ability to establish, enforce and maintain selected strategic alliances and activities required for commercialization of our potential drugs;
- the acquisition of technologies, products and other business opportunities that require financial commitments; and
- our revenues, if any, from successful development of our drug candidates and commercialization of potential drugs.

We believe that the net proceeds of this offering and the private placement, our existing cash resources, future payments from GSK and AstraZeneca, proceeds from equipment financings and interest earned on investments will be sufficient to meet our projected operating requirements for at least the next 24 months. If, at any time, our prospects for internally financing our research programs decline, we may decide to reduce research and development expenses by delaying, discontinuing or reducing our funding of development of one or more drug candidates. Alternatively, we might raise funds through public or private financings, strategic relationships or other arrangements. We cannot assure you that the funding, if needed, will be available on attractive terms, or at all. Furthermore, any additional equity financing may be dilutive to stockholders and debt financing, if available, may involve restrictive covenants. Similarly, financing obtained through future co-development arrangements may require us to forego certain commercial rights to future drug candidates. Our failure to raise capital as and when needed could have a negative impact on our financial condition and our ability to pursue our business strategy.

As of December 31, 2001, 2002 and 2003, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. Therefore, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged

in these relationships. We do not have relationships or transactions with persons or entities that derive benefits from their non-independent relationship with us or our related parties.

Disclosure about Market Risk

Our exposure to market risk is limited to interest income sensitivity, which is affected by changes in the general level of United States interest rates, particularly because the majority of our investments are in short-term debt securities. The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive without significantly increasing risk. To minimize risk, we maintain our portfolio of cash, cash equivalents, short-term and long-term, and restricted investments in a variety of interest-bearing instruments, including United States government and agency securities, high-grade United States corporate bonds, commercial paper and money market funds. The investment portfolio is subject to interest rate risk and will fall in value in the event market interest rates increase. Due to the short duration of our investment portfolio, we believe an immediate 10% change in interest rates would not be material to our financial condition or results of operations. We do not have any foreign currency or derivative financial instruments.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and related disclosure of contingent assets and liabilities. We review our estimates on an ongoing basis. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. While our significant accounting policies are described in more detail in the notes to our financial statements included in this prospectus, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

We recognize revenue in accordance with Securities and Exchange Commission Staff Accounting Bulletin, or SAB, No. 101, Revenue Recognition in Financial Statements, as amended by SAB Nos. 101A and 101B. SAB No. 101 requires that four basic criteria must be met before revenue can be recognized: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the fee is fixed and determinable; and collectibility is reasonably assured. Determination of whether persuasive evidence of an arrangement exists and whether delivery has occurred or services have been rendered are based on management's judgments regarding the fixed nature of the fee charged for research performed and milestones met, and the collectibility of those fees. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected.

Research and development revenues, which are earned under agreements with third parties for contract research and development activities, are recorded as the related expenses are incurred. Charges to the third parties are based upon negotiated rates for our FTEs and actual out-of-pocket costs. Rates for FTEs are intended to approximate our anticipated costs. Milestone payments are non-refundable and recognized as revenue when earned, as evidenced by achievement of the specified milestones and the absence of ongoing performance obligations. Any amounts received in advance of performance are recorded as deferred revenue. None of the revenues recognized to date are refundable if the relevant research effort is not successful.

Grant revenues are recorded as research is performed. Grant revenues are not refundable.

License revenues received in connection with strategic alliance agreements are deferred and recognized on a straight-line basis over the term of the agreement.

Stock-Based Compensation

We account for stock-based employee compensation arrangements in accordance with the provisions of Accounting Principles Board Opinion No. 25 ("APB 25"), "Accounting for Stock Issued to Employees," Statement of Financial Accounting Standards No. 123 ("SFAS No. 123"), "Accounting for Stock-Based Compensation" and complies with the disclosure requirements of Statement of Financial Accounting Standards ("SFAS") No. 148, "Accounting for Stock-Based Compensation and Disclosure an Amendment of FASB Statement No. 123." Under APB 25, compensation expense is based on the difference, if any, on the date of grant, between the estimated fair value of our common stock and the exercise price. SFAS No. 123 defines a "fair value" based method of accounting for an employee stock option or similar equity investment.

We account for equity instruments issued to non-employees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force ("EITF") Issue No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling Goods, or Services."

Recent Accounting Pronouncements

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. In December 2003, the FASB issued FIN 46R, a revision to FIN 46. FIN 46R provides a broad deferral of the latest date by which all public entities must apply FIN 46 to certain variable interest entities to the first reporting period ending after March 15, 2004. We do not expect the adoption of FIN 46 to have a material impact upon our financial position, cash flows or results of operations.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." SFAS No. 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability or an asset in some circumstances. Many of those instruments were previously classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. It is to be implemented by reporting the cumulative effect of a change in an accounting principle for financial instruments created before the issuance date of SFAS No. 150 and still existing at the beginning of the interim period of adoption. While the effective date of certain elements of SFAS No. 150 has been deferred, we do not expect the adoption of SFAS No. 150 to have a material impact upon our financial position, cash flows or results of operations.

BUSINESS

Overview

We are a leading biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule drugs that specifically target the cytoskeleton. A number of commonly used drugs and a growing body of research validate the role the cytoskeleton plays in a wide array of human diseases. Our focus on the cytoskeleton enables us to develop novel and potentially safer and more effective drugs for the treatment of these diseases. We believe that our cell biology driven approach and proprietary technologies enhance the speed, efficiency and yield of our drug discovery and development process. Our unique approach has produced two cancer drug candidates, an acute congestive heart failure drug candidate, and more than ten other research programs addressing a variety of other disease areas including fungal diseases, inflammatory diseases, high blood pressure and asthma. Our most advanced cancer drug candidate, SB-715992, is the subject of a broad Phase II clinical trials program, being conducted by our partner GSK, designed to evaluate effectiveness in multiple tumor types. An IND was filed with the FDA in 2003 for SB-743921, our second cancer drug candidate being developed by GSK, which we expect will enter Phase I clinical trials in early 2004. In addition, we expect to file an IND and initiate Phase I clinical trials for CK-1213296, our drug candidate for treating acute congestive heart failure, in the second half of 2004.

Because the cytoskeleton plays a fundamental role in the cell proliferation process, we focused our initial research and development activities on cancer, a disease of unregulated cell proliferation. Our most advanced cancer drug candidate, SB-715992, is a small molecule compound that interferes with cell proliferation and promotes cancer cell death by specifically inhibiting the function of KSP. KSP is a cytoskeletal protein that is essential for cell proliferation, a process which when unregulated, results in tumor growth. Unlike many commonly used cancer drugs, such as Taxol and Taxotere which also impact cytoskeletal proteins, SB-715992 inhibits only cell proliferation and does not interfere with other cell functions. As a result, we believe SB-715992 may exhibit a lower incidence of toxicities. In addition, our preclinical studies indicate that SB-715992 may be effective in treating a wider variety of tumors than existing cancer drugs. SB-715992 is being developed by GSK under our strategic alliance. A Phase II clinical trial for SB-715992 in non-small cell lung cancer began in late 2003. A series of parallel Phase II monotherapy clinical trials and Phase Ib combination therapy clinical trials are scheduled to begin throughout 2004. These additional trials are expected to evaluate SB-715992 in multiple tumor types, including colorectal, breast and ovarian cancers. In addition, the NCI plans to sponsor additional Phase I and Phase II clinical trials in 2004 to evaluate SB-715992 in other tumor types and other dosing regimens.

Our other cancer drug candidate, SB-743921, is a structurally distinct small molecule compound that also modulates cell proliferation by specifically inhibiting KSP. Like SB-715992, SB-743921 is being developed by GSK under our strategic alliance. We expect that Phase I clinical trials evaluating the safety and pharmacokinetics of SB-743921 will begin in early 2004. The concurrent development of both drug candidates is key to our strategy of maximizing the potential for the development of a commercially viable cancer drug. We expect other drug candidates targeting other related cytoskeletal proteins essential for cell proliferation will emerge from our strategic alliance with GSK. In addition, we are independently pursuing compounds directed at other cytoskeletal protein pathways, unrelated to cell proliferation, in our other research programs that may also have application for the treatment of cancer.

Our focus on the cytoskeleton enables us to leverage research and development investments made in our cancer program for our programs in other diseases. For example, we have extended our understanding of the biology of the cytoskeleton to cardiovascular disease. The cytoskeleton plays a pivotal role in cardiac muscle contraction and has been linked to the origins of congestive heart failure, a disease of impaired cardiac function. We believe that by targeting cytoskeletal proteins and multi-protein systems that are responsible for cardiac muscle contraction, we will be able to develop

effective and safe drugs for the treatment of acute and chronic congestive heart failure. We expect to file an IND and initiate a Phase I clinical trial for CK-1213296, our drug candidate for the treatment of acute congestive heart failure, in the second half of 2004. CK-1213296 specifically targets and activates cardiac myosin, a cytoskeletal protein essential for cardiac muscle contraction. In animal models, compounds arising from this program improve cardiac contractility without the potentially life-threatening effects on heart rhythm, heart rate and blood pressure often exhibited by existing congestive heart failure drugs.

We have more than ten other research programs similarly focused on diseases in which we believe the cytoskeleton plays a significant role. For example, in infectious diseases, we are conducting chemical lead optimization activities for compounds that disrupt a specific cytoskeletal protein essential to fungal cell proliferation. These compounds have demonstrated improved survival in an animal model of fungal infection and, because they are directed against a novel cytoskeletal protein target, we believe they may overcome the increasing clinical resistance seen with existing antifungal drugs. In addition, we are evaluating specific inhibitors of other cytoskeletal proteins implicated in fungal cell proliferation and virulence that may also result in potential drugs for fungal infections. We also have a research program designed to find anti-inflammatory drug candidates by targeting specific cytoskeletal proteins involved in cell movement. We have identified compounds that inhibit the function of a key cytoskeletal protein involved in the migration of inflammatory cells into diseased tissues. Furthermore, we have identified, characterized and are now seeking to chemically optimize other compounds that target another cytoskeletal multi-protein system and that inhibit smooth muscle contractility. Our objective for this research program is to discover potential drug candidates for high blood pressure, asthma and other disease conditions.

All of our compounds in research and development have been discovered internally using our cell biology driven approach and proprietary automated technologies. This approach, which we have applied specifically to the cytoskeleton, enables increased speed, efficiency and yield not only in our drug discovery process, but also potentially in clinical development. We focus on developing a detailed understanding of validated protein pathways and multi-protein systems to allow our assay systems to more correctly represent the natural environment of a human cell. This approach differs from the conventional practice of concentrating on individual protein targets assayed in a system that may not adequately represent the natural functional environment that is relevant to disease. As a result, we can identify multiple points of biological intervention to modulate a specific protein pathway or multi-protein system. Our discovery activities are thus directed at particular proteins that may be better targets for the development of potentially safer and more effective drugs.

Our PUMA system and Cytometrix technologies enable early identification and automated prioritization of compounds that are highly selective for their intended protein targets without other cellular effects, and are thereby less likely to give rise to clinical side effects. Our PUMA system identifies compounds within our small molecule library that are likely to target specific cytoskeletal proteins. Our Cytometrix technologies enable us to simultaneously analyze and quantify hundreds of effects of each compound on a cell-by-cell basis. The integrated use of these technologies enables us to efficiently focus our efforts towards those compounds directed at novel cytoskeletal protein targets that are more likely to yield attractive drug candidates. We have advanced our Cytometrix technologies through technical development activities conducted with each of Eisai Research Institute, Novartis Pharma AG, Tularik Inc. and Vertex Pharmaceuticals, Inc.

We selectively seek partners and strategic alliances that enable us to maintain financial and operational flexibility while retaining significant economic and commercial rights to our drug candidates. For example, under our strategic alliance, GSK has made a $14.0 million upfront cash payment, an initial $14.0 million equity investment and has committed to reimburse our FTEs performing research in connection with the strategic alliance. As of December 31, 2003, we have received FTE reimbursement of $17.2 million, and in the future we expect to receive additional FTE reimbursement. In addition, we have received, through December 31, 2003, $3.2 million in precommercialization milestone payments from GSK, and in the future we could receive significant

precommercialization milestone payments and royalties on product sales. GSK is responsible for worldwide development of drug candidates and commercialization of drugs arising from the strategic alliance but we retain a product-by-product option to co-fund certain later-stage development activities in exchange for a higher royalty rate and a further option to secure co-promotion rights in North America. In the event we exercise a co-promotion option, we are entitled to receive reimbursement from GSK for certain sales force costs that we may incur in support of our commercial activities. In addition to our strategic alliance with GSK, our joint technology development activities with each of Eisai Research Institute, Novartis Pharma AG, Tularik Inc. and Vertex Pharmaceuticals, Inc. have supported the continued development and further validated the proprietary technologies that we use in our research programs. In December 2003, we entered into a strategic alliance with AstraZeneca to fund and participate in the development of a new application of our Cytometrix technologies for use by both parties.

We plan to build commercial capabilities to address markets characterized by severe illnesses, large patient populations and concentrated customer groups. For example, for SB-715992 and SB-743921, we intend to establish sales and marketing capabilities in collaboration with GSK to support the future commercialization of one or both of those potential drugs in North America. In markets for which customer groups are not concentrated, we intend to seek strategic alliances for the development and commercialization of drug candidates while retaining significant financial interests.

The Cytoskeleton

The cytoskeleton is a diverse, multi-protein framework that carries out fundamental mechanical activities of cells including mitosis, or the division of genetic material during cell division, intracellular transport, cell movement and contraction and overall cell organization. It provides an ordered but dynamic organizational scaffolding for the cell, and mediates movement, whether of proteins within the cell or of the entire cell itself. The cytoskeleton is comprised of a unique set of filaments and molecular motor proteins. Filaments are long linear structures of proteins that serve as the major scaffolding in cells and conduits for movement of molecular motor proteins transporting other proteins or intracellular material. Microtubule filaments are composed of tubulin, and actin filaments are composed of actin. Molecular motor proteins, such as kinesins and myosins, are proteins that transport materials within cells and are also responsible for cellular movement. Kinesins move along microtubule filaments and myosins move along actin filaments.

These cytoskeletal proteins organize into ordered protein pathways or multi-protein systems that perform important cellular functions. For example, one such structure called the mitotic spindle organizes and divides genetic material during cell proliferation. The mitotic spindle encompasses many cytoskeletal proteins including tubulin, which forms microtubule filaments, and a sub-group of kinesins known as mitotic kinesins. The highly orchestrated action of the proteins within this structure transports and segregates genetic material during cell proliferation. Our most advanced cancer program, partnered with GSK, is focused on discovering potential drugs that inhibit human mitotic kinesins. One of our founders and scientific advisory board members, Dr. Ron Vale, first discovered kinesins. Another of our founders and scientific advisory board members, Dr. Larry Goldstein, was the first scientist to identify and characterize kinesin genes.

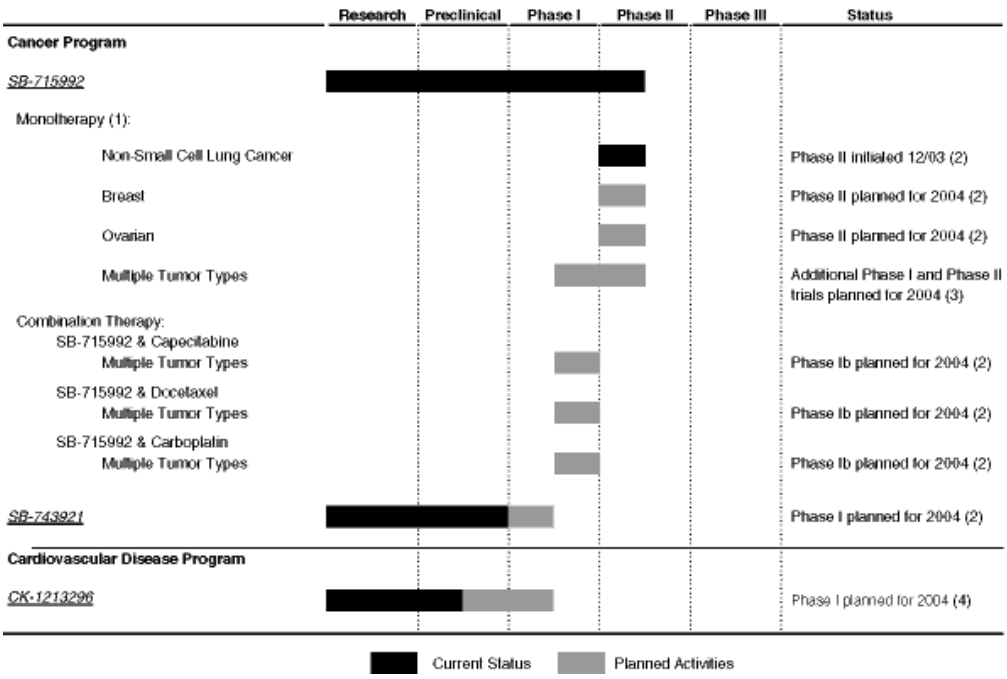
Another multi-protein cytoskeletal structure, called the cardiac sarcomere, contains a highly ordered array of cardiac myosin interacting with actin filaments. The movement of myosin along actin filaments generates the cell contraction responsible for cardiac muscle function. Our program in congestive heart failure is focused on discovering potential drugs that activate cardiac myosin. Another of our founders and scientific advisory board members, Dr. James Spudich, was one of the first scientists to characterize the functional interrelationships of the cytoskeletal proteins in the sarcomere.

Beyond the role these specific cytoskeletal proteins play in cell proliferation and cardiac muscle contraction, other cytoskeletal proteins have been implicated in a variety of other important biological processes and related human diseases. Our drug discovery activities are focused on several of these mechanical cellular processes, including cell proliferation, cardiac and other muscle contraction, cellular organization and cell motility, and are specifically directed at the cytoskeletal proteins that play essential roles in carrying out these functions. For instance, a unique set of cytoskeletal proteins forms the cellular machinery that maintains blood vessel tone. One of our research programs is focused on discovering inhibitors of these proteins as a potential treatment for high blood pressure. In addition, another unique set of cytoskeletal proteins is essential for the movement and function of inflammatory cells. We have a research program focused on the discovery of novel anti-inflammatory drug candidates that inhibit these proteins.

Our Product Development Opportunities

All of our research programs are focused on diseases in which we believe the cytoskeleton plays a significant role. The following table summarizes our clinical and preclinical programs in 2004 with their current status shown in black and planned activities shown in gray, and excludes those programs that are still in the research stage:

Clinical and Preclinical Programs in 2004



(1) The Phase I clinical trials of SB-715992 will be used to support Phase II clinical trials for each of the cancer indications set forth below.
(2) To be conducted by GSK.
(3) To be conducted by NCI. Phase I and Phase II clinical trials may include colorectal, kidney, head and neck, prostate, melanoma and hematological cancers, as well as the potential evaluation of other potential dosing schedules for SB-715992.
(4) To be conducted by Cytokinetics.

In addition to the above preclinical and clinical programs, we also have more than ten other research programs. For example, we are conducting chemical lead optimization activities in our antifungal program with the objective of selecting a drug candidate to enter IND-enabling studies in 2005. Currently, we are also conducting research on several earlier stage research programs that we believe will contribute to our development pipeline over time.

Our Cancer Program

One of our major development programs is focused on cancer, a disease of unregulated cell proliferation. Each of our cancer drug candidates, SB-715992 and SB-743921, is a structurally distinct small molecule compound that modulates cell proliferation and promotes cancer cell death by specifically inhibiting KSP. KSP is a mitotic kinesin that acts early in the process of mitosis during cell proliferation and is responsible for the formation of a functional mitotic spindle. We initially discovered, characterized and optimized both drug candidates in our research laboratories. These drug candidates are now being developed by GSK through our strategic alliance. SB-715992 is currently the subject of a broad Phase II clinical trials program designed to evaluate efficacy against multiple tumor types. We expect SB-743921 to enter Phase I clinical trials in early 2004. We are also pursuing other potential drug candidates for the treatment of cancer, both within our strategic alliance with GSK and on our own.

Market Opportunity. Each year over 1.3 million new patients are diagnosed with primary malignant solid tumors or hematological cancers in the United States. The incidence of three of the more common cancer types, colorectal, breast and non-small cell lung cancers, in the United States represents between 35% and 50% of the total incidence of these cancers in the United States, Japan and the major commercial markets in Europe.

The current market for cancer drugs worldwide is greater than $10.0 billion. Within this market, we estimate that sales of drugs that inhibit mitosis, or anti-mitotic drugs, such as taxanes, most notably Taxol from Bristol-Myers Squibb and Taxotere from Aventis, comprise a large portion of the commercial market for cancer drugs. Worldwide sales from these taxanes alone represented over $2.0 billion in 2002.

Since their introduction over 30 years ago, anti-mitotic drugs have advanced the treatment of cancer and are commonly used for the treatment of several tumor types. However, these drugs have demonstrated no treatment benefit against certain tumor types, such as colorectal and other tumors. In addition, these drugs target tubulin, a cytoskeletal protein involved not only in mitosis and cell proliferation, but also in other important cellular functions. The inhibition of these other cellular functions produces dose-limiting toxicities such as peripheral neuropathy, an impairment of the peripheral nervous system. Neuropathies result when these drugs interfere with the dynamics of microtubule filaments that are responsible for the long-distance transport of important cellular components within nerve cells.

Our Solution. Mitotic kinesins form a diverse family of newly characterized cytoskeletal proteins that, like tubulin, facilitate the mechanical processes required for mitosis and cell proliferation. There are 14 human mitotic kinesins required to carry out cell division. We have identified and characterized all of them. Each of these mitotic kinesins functions in a pathway to enable cell division. In our cancer program directed towards inhibitors of mitotic kinesins, we have screened each mitotic kinesin and identified small molecule inhibitors of most of them using our PUMA system, and have begun characterizing these inhibitors using our Cytometrix technologies. We believe that this comprehensive approach to the complete mitotic kinesin pathway will allow us to identify a number of drug candidates that may have diverse clinical utilities. The first mitotic kinesin in this pathway and the one upon which we have focused a majority of our research and development efforts is KSP.

We believe that drugs inhibiting KSP and other mitotic kinesins represent the next generation of anti-mitotic cancer drugs. Mitotic kinesins are essential to mitosis, and, unlike tubulin, appear to have

no role in unrelated cellular functions. In addition, they are expressed only in proliferating cells and in higher concentrations in many tumor cells than in non-cancerous proliferating cells. We believe drugs that inhibit KSP and other mitotic kinesins can arrest mitosis and cell proliferation without impacting unrelated, normal cellular functions, avoiding many of the toxicities commonly experienced by patients treated with existing anti-mitotic cancer drugs.

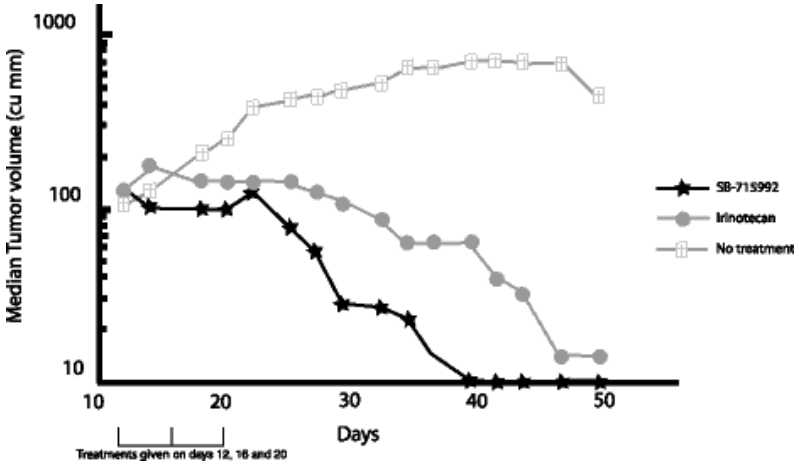
Our small molecule inhibitors of KSP are highly potent and specific. We have performed detailed biochemical studies to understand the precise molecular mechanism by which our drug candidates inhibit KSP activity. By inhibiting KSP, a cell cannot undertake the first step of mitosis, the separation of the two poles of the mitotic spindle; as a result, a monopolar mitotic spindle is created. Interruption of proper cell division through this mechanism in cancer cells results in cell death. In preclinical research, our drug candidates cause shrinkage of tumor size or reduction in tumor growth rates in more than ten different animal models, including cancers of the colon, lung, breast, ovary, pancreas and prostate, sarcomas and leukemias. These models reveal favorable results for our drug candidates in comparison to existing drugs such as irinotecan, topotecan, gemcitabine, paclitaxel, vinblastine and cyclophosphamide. Based on our preclinical data, we believe that our KSP inhibitor drug candidates may have the potential to expand the range of tumor types susceptible to this novel form of targeted anti-mitotic treatment.

We have identified, characterized and optimized several distinct structural classes of KSP inhibitors as well as specific inhibitors of other mitotic kinesins. Our KSP inhibitor drug candidates, SB-715992 and SB-743921, are being developed by GSK through our strategic alliance. We and GSK are also characterizing several other mitotic kinesin inhibitors that may have therapeutic potential. We believe that our cancer drug candidates may be safer, more effective and treat a wider variety of tumor types than current anti-mitotic drugs. In addition, preclinical data on SB-715992 indicate that this compound may have an additive effect in certain combination regimens with existing cancer drugs. Potential advantages of our drug candidates include:

- ***Broad therapeutic potential.*** Our preclinical testing indicates that SB-715992 and SB-743921 cause tumor regression in the form of partial response, complete response or tumor growth inhibition in a variety of tumor types. This is consistent with the important role that KSP plays in cell proliferation in all tumor types, and with the observation that KSP expression levels are higher in some tumor cells than in non-cancerous cells. The graphic below illustrates preclinical effects observed with SB-715992 in a mouse model of colon cancer, a type of cancer that is difficult to treat with existing anti-mitotic drugs.

Reduction in Tumor Volume

SB-715992 Compared to Irinotecan in a Mouse Model of Colon Cancer



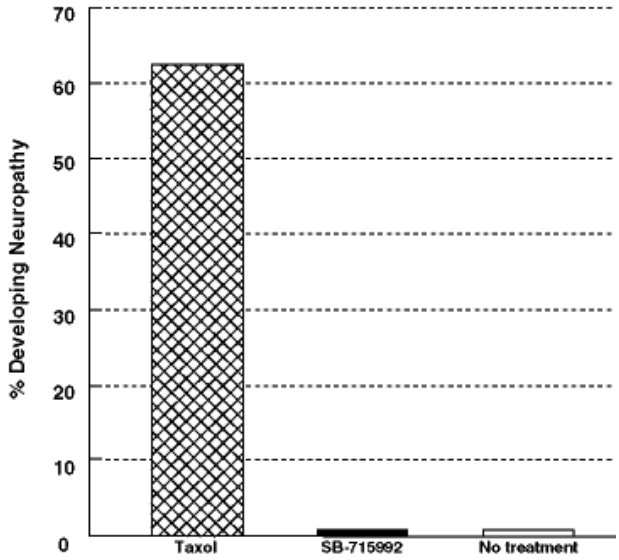
SB-715992 causes colon tumor reduction in a mouse model. This graph shows the size of human colon tumors implanted in a mouse as treated with SB-715992 (shown on the lower curve with stars), irinotecan, a drug that is commonly used in treating colon cancer (middle curve with circles) or no treatment (upper curve with squares). Mice given SB-715992 experienced greater tumor shrinkage over the course of the study than those given irinotecan. Both drugs were administered at the maximum dose tolerated by the animals on days 12, 16 and 20 of the study.

- ***Favorable safety profile.*** Preclinical testing of SB-715992 and SB-743921 indicate that these compounds have fewer toxicities than many existing cancer drugs. These studies indicate that the primary toxicities are temporary, limited to gastrointestinal side effects and a reduction in bone marrow function. We observed no evidence of drug-related toxicities to the nervous system, heart, lung, kidney or liver. We believe that this safety profile could enable higher dosing of SB-715992 and SB-743921 and increase their therapeutic value.

Because neuropathy is a common dose-limiting side effect of anti-mitotic cancer drugs, such as Taxol, we analyzed the effects of SB-715992 on the peripheral nervous system in a mouse model.

Incidence of Neurotoxicity Side Effects

SB-715992 Compared to Taxol in a Mouse Model



This graph shows the percentage of mice developing peripheral nervous system dysfunction after being given Taxol (shown on the left with hatched bar), SB-715992 (shown in the middle with black bar) or no treatment (shown on the right with white bar). No evidence of nervous system dysfunction is seen in mice given SB-715992, whereas Taxol causes nerve dysfunction in over 60% of mice tested. Both drugs were given at doses used to treat cancer in mouse models.

Current Program Status. SB-715992 is the subject of an ongoing broad Phase II clinical trials program designed to evaluate its efficacy in treating multiple tumor types. The first Phase II clinical trial began in late 2003 to evaluate SB-715992 as a monotherapy in non-small cell lung cancer. Throughout 2004, other monotherapy Phase II clinical trials are planned to evaluate SB-715992 in other prevalent tumor types addressing large commercial markets, including colorectal, breast and ovarian cancers. Also, throughout 2004, the NCI plans to sponsor several additional Phase I and Phase II clinical trials to evaluate other potential dosing regimens and the effectiveness of SB-715992 in other tumor types, which may include colorectal, kidney, head and neck, prostate, melanoma and hematological cancers, respectively. In aggregate, we anticipate that Phase II clinical trials for SB-715992 will enroll approximately 500 patients at approximately 50 clinical trial sites worldwide and evaluate our drug candidate in patients with a wide array of tumor types who have failed multiple prior therapies in both later and earlier-line treatments. Furthermore, we anticipate that SB-715992 may eventually be used in combination therapy regimens with existing cancer drugs. Phase Ib clinical trials are planned throughout 2004 to evaluate SB-715992 in combination with standard cancer drugs such as capecitabine, docetaxel and carboplatin.

The design of the Phase II clinical trials program draws upon information learned from Phase I clinical trials of SB-715992. GSK commenced the first Phase I clinical trial of SB-715992 in August 2002. This clinical trial, which is nearing completion, is an open-label, non-randomized, dose-finding trial investigating safety, tolerability, pharmacokinetics and pharmacodynamics of SB-715992. This Phase I clinical trial is evaluating various doses of SB-715992 given as a one-hour intravenous infusion repeated once every three weeks. A second similarly designed dose-finding Phase I clinical trial commenced in January 2003. This second study, which is also nearing completion, is evaluating dosing of SB-715992 given once per week for each of three weeks and repeated over a 28-day

cycle. In both clinical trials, the participants are patients with different types of cancer, all of whom have previously failed multiple regimens of drugs.

As of March 1, 2004, 45 patients were enrolled in the first clinical trial and 30 patients were enrolled in the second clinical trial. The only dose-limiting toxicity observed in both clinical trials is temporary neutropenia, a decrease in the number of a certain type of white blood cell. This was anticipated given that we believe SB-715992 inhibits KSP in these white blood cells and prevents their proliferation. At the planned Phase II clinical dosing levels, Phase I clinical trial investigators have observed no clinically meaningful evidence of drug-related toxicity to the nervous system, heart, lung, kidney or liver. Both studies demonstrate that the pharmacokinetics of SB-715992 are dose-proportional, indicating that an increased dose is correlated with increased drug exposure. This allows us to more accurately correlate drug dose with drug effectiveness. Although these Phase I clinical trials were not designed to measure efficacy, anti-cancer activity was observed as indicated by stabilization of disease in thirteen patients with colorectal, liver, head and neck, prostate, ovarian, pancreatic and kidney cancers over three to thirteen courses of treatment. In addition, trial investigators reported tumor shrinkage in five patients with colorectal, kidney, prostate and pancreatic cancers.

In December 2003, under our strategic alliance, GSK filed an IND for SB-743921, a structurally distinct KSP inhibitor. We expect GSK to commence Phase I clinical trials for this drug candidate in early 2004. The Phase I clinical trials program for SB-743921 is designed as an open-label, non-randomized, dose-finding trial investigating safety, tolerability, pharmacokinetics and pharmacodynamics of this drug candidate. Though we are aware of no clinical shortcomings of SB-715992 that are addressed by SB-743921, we believe that having two KSP inhibitors in concurrent clinical development increases the likelihood that a commercial product will result from this program.

Commercialization. GSK is responsible for the worldwide development and commercialization of SB-715992 and SB-743921 and other drug candidates arising from the strategic alliance. We will receive royalties from the sale of any drugs developed under the strategic alliance. In addition, we retain an option for each of SB-715992 and SB-743921 to co-fund certain later-stage development activities, and thereby increase our potential royalty rate. Furthermore, for those drug candidates that we co-fund certain later-stage development activities, we have a further option to secure co-promotion rights in North America. We expect that the royalties to be paid on future sales of SB-715992 and SB-743921 could potentially increase to an upper-teen percentage rate based on increasing product sales and our anticipated level of co-funding. In the event we exercise our co-promotion option, we are entitled to receive reimbursement from GSK for certain sales force costs we incur in support of our commercial activities. We expect to develop sales and marketing capabilities to support the North American commercialization of one or both of SB-715992 and SB-743921 and other drug candidates that may be developed under our strategic alliance with GSK. Because cancer patients are largely treated in institutional and other settings that can be addressed by a specialized sales force, developing our commercial capabilities to address such treatment centers is consistent with our corporate strategy of focusing our commercial efforts on large, concentrated markets.

Our Cardiovascular Disease Program

We have focused our cardiovascular disease research and development activities on congestive heart failure, a disease characterized by compromised contractile function of the heart that impacts its ability to effectively pump blood throughout the body. We have discovered and optimized small molecule compounds that improve cardiac contractility by specifically targeting and activating cardiac myosin, a cytoskeletal protein essential for cardiac muscle contraction. In animal models, CK-1213296, our drug candidate in this program, improves cardiac contractility without the adverse effects on heart rate, blood pressure and oxygen consumption often exhibited by existing congestive heart failure drugs. We are pursuing CK-1213296 for intravenous administration in an acute care setting. We expect to file an IND with the FDA and initiate a Phase I clinical trial for CK-1213296 in

the second half of 2004. We are conducting additional chemical optimization activities for other compounds that are intended for the treatment of chronic congestive heart failure through oral administration.

Market Opportunity. Congestive heart failure is a widespread and rapidly growing disease affecting approximately five million people in the United States alone. The high prevalence of congestive heart failure translates into significant hospitalization rates and associated societal costs. The number of hospital discharges in the United States identified with a primary diagnosis of congestive heart failure rose from 550,000 in 1989 to 900,000 in 1999. Congestive heart failure is the most common primary diagnosis identified in hospital discharges for patients over 65. The annual costs of congestive heart failure in the United States are estimated to be $28.8 billion, including $17.1 billion for inpatient care.

The market for congestive heart failure drugs was approximately $2.7 billion in 2001 and is expected to grow to approximately $4.0 billion by 2011. Current congestive heart failure drugs may have reached a plateau in terms of efficacy because they typically treat only the symptoms and effects of the disease. We believe that drugs that directly target the underlying cellular mechanisms responsible for congestive heart failure will be more effective.

Existing drugs that improve cardiac contractility, including milrinone, dobutamine and digoxin, treat congestive heart failure in part by improving the contraction of cardiac cells, thus leading to an improvement in overall cardiac contractility. These drugs work through a complex cascade of cellular proteins, eventually resulting in an increase in intracellular calcium and a subsequent increase in cardiac cell contractility. However, activation of this cascade and the elevation of calcium levels may also impact other cardiac cell functions, producing unintended and potentially life threatening side effects, such as cardiac ischemia from increased oxygen demand and cardiac arrhythmias. Cardiac ischemia is a condition in which oxygen delivery to the heart is limited and is frequently observed in heart failure patients due to constriction or obstruction of blood vessels. Cardiac arrhythmias are irregularities in the force, quality and sequence of the heart beat. In addition, these existing drugs impact tissues apart from cardiac muscle leading to increases in heart rate and decreases in blood pressure, which can complicate their use in this patient population. Therefore, although existing drugs may be effective in treating the symptoms of heart failure, they often increase congestive heart failure patient morbidity and mortality.

Our Solution. We believe that the direct activation of cardiac myosin is a more specific mechanism by which to improve cardiac cell contractility. Cardiac myosin is the cytoskeletal protein in the cardiac cell that is directly responsible for converting chemical energy into the mechanical force that results in contraction. Cardiac muscle cell contractility is driven by the cardiac sarcomere, the fundamental unit of muscle contraction in the heart that is a highly ordered cytoskeletal structure composed of cardiac myosin, actin and a set of regulatory proteins. The sarcomere represents one of the most thoroughly characterized protein machines in human biology. Existing drugs that seek to improve cardiac cell contractility increase the concentration of intracellular calcium, which indirectly activates cardiac myosin, but this effect on calcium levels also produces potentially life threatening side effects. Alternatively, our drug candidate for the treatment of acute congestive heart failure, CK-1213296, increases cardiac contractility by specifically targeting and directly activating cardiac myosin so that it attaches to actin to generate contractile force in the cardiac sarcomere.

We believe we are the first to develop potential drug candidates that specifically activate cardiac myosin. We accomplished this by leveraging our expertise in the biochemistry, biophysics, chemistry and pharmacology of the cardiac sarcomere. We developed a series of proprietary assays that measure the integrated function of the cardiac sarcomere. We believe that we are the first to reconstitute for use in a high-throughput screen the essential components of the cardiac sarcomere from purified proteins as a fully calcium-regulated system simulating the activity of the multi-protein system *in vivo*. The resulting high-throughput assay, incorporated within our PUMA system, is capable of detecting modulators of key aspects of sarcomere function ranging from cardiac myosin

interaction with the actin filament to the sensitivity of the regulatory proteins to calcium. We have also developed a suite of complementary assays for the characterization of cardiac myosin activators in a manner that predicts their physiological activity. As a result, we can rapidly advance and evaluate highly potent and selective compounds in predictive assays replicating physiologic systems, and determine the precise mechanism of action of promising chemical compounds.

We have identified multiple chemical series of cardiac myosin activators with attractive properties through repeated characterization in cell and animal models. In rats, guinea pigs and dogs, compounds arising from this program demonstrate increased cardiac contractility and improved cardiac efficiency without accompanying adverse effects.

Our preclinical testing indicates that CK-1213296 works through a novel mechanism of action that enables the modulation of cardiac cell contraction without increasing intracellular calcium levels or interfering with other unrelated cardiac muscle functions. As a result, we believe that CK-1213296 may effectively improve cardiac contractility and cardiac output for the treatment of acute congestive heart failure patients without adversely impacting heart rate or blood pressure and minimally affecting cardiac energy consumption. While we view the preclinical data on CK-1213296 as promising, it may not be predictive of clinical results in humans, which we would need to complete before we can determine whether the drug is safe and effective.

We believe that CK-1213296 could be safer and more effective than existing congestive heart failure drugs. Potential advantages of compounds arising from this program may include:

- ***Cardiac efficiency.*** Our preclinical testing indicates that compounds arising from this program both enhance cardiac output and improve cardiac efficiency. Cardiac output measures the volume of blood pumped into circulation by the heart per minute. Cardiac work is the product of cardiac output and blood pressure. One measure of cardiac efficiency is the ratio of cardiac work divided by oxygen consumption.

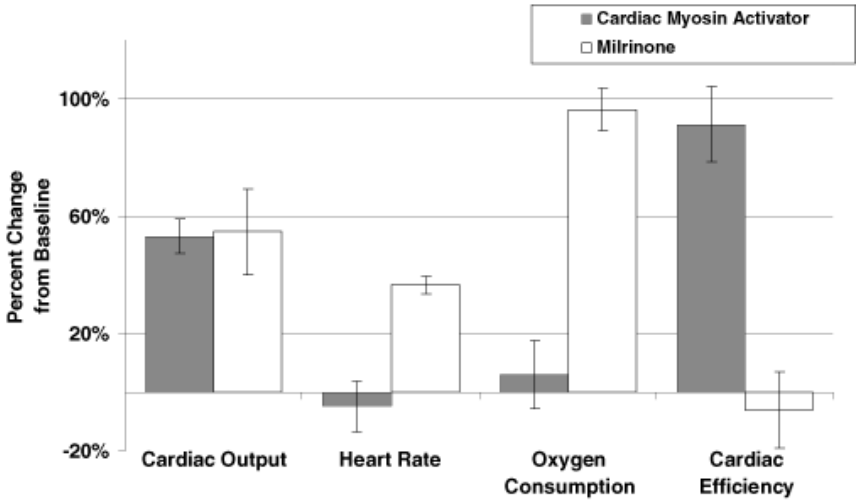
- ***Favorable safety profile.*** Our preclinical testing indicates that compounds arising from this program may enhance cardiac output without significantly increasing heart rate, decreasing blood pressure or causing cardiac arrhythmias.

We expect that the properties of CK-1213296 could result in its improved safety over existing congestive heart failure drugs and allow for the potential use of our cardiac myosin activators for the treatment of patients for whom current drugs cannot be safely administered.

As shown below, in studies in a rat model, a precursor compound to CK-1213296 improves cardiac efficiency at a dose producing an equal increase in cardiac output, as compared to milrinone, a drug commonly used to treat acute congestive heart failure.

Increase in Cardiac Efficiency

Our Cardiac Myosin Activator Compared to Milrinone in a Rat Model



A cardiac myosin activator efficiently increases cardiac output. This graph shows the percentage change of cardiac output, heart rate, oxygen consumption and cardiac efficiency in rat hearts as measured against a baseline. The baseline was established by measuring these cardiac functions in the rat model prior to treatment. While both the cardiac myosin activator (gray bars) and milrinone (white bars) both increase cardiac output in isolated hearts, only the cardiac myosin activator achieves the increase in cardiac output with no associated increase in heart rate or significant increase in oxygen consumption.

Currently our objective in this program is to complete preclinical testing for CK-1213296. In addition, some of our other compounds have properties that may allow for the development of an orally administered compound suitable for the treatment of chronic congestive heart failure. We believe that cardiac myosin activators arising from our cardiovascular disease drug discovery activities may represent improvements relative to drugs commonly used in the treatment of both acute and chronic congestive heart failure.

Current Program Status. We are currently performing advanced characterization activities on CK-1213296. We expect to file an IND and initiate a Phase I clinical trial with CK-1213296 for the treatment of acute congestive heart failure in the second half of 2004 although we can not be certain that the FDA will approve our IND and allow our clinical trial to proceed on a timely basis, if at all. We plan to design this Phase I clinical trial to assess in healthy volunteers the drug candidate's safety, including dosing pharmacokinetics and effects on blood pressure and heart rate. We expect that follow-on studies will evaluate the effects of our drug candidate on cardiac output.

Compounds, such as CK-1213296, identified through our research program have been shown to be effective in animal models of normal cardiac function and of heart failure. These compounds specifically activate cardiac myosin and increase cardiac contractile force *in vitro* and *in vivo,* and have no unintended effects on related targets in skeletal or smooth muscle. Furthermore, these compounds have no unintended effects on cardiac cellular calcium concentration. In animal models, these compounds increase cardiac contractility and have no significant adverse effects on heart rate

or blood pressure. We are pursuing CK-1213296 for intravenous administration for use in treating acute congestive heart failure. We are also undertaking chemical optimization activities for compounds that are intended for oral administration for use in treating chronic congestive heart failure.

Commercialization. While we may seek a strategic alliance to assist in the further funding and expansion of our cardiovascular disease drug discovery and development program, we expect to build capabilities to develop, market and sell our acute congestive heart failure drugs in North America. Because acute congestive heart failure patients are largely treated in teaching and community-based hospitals that can be addressed by a specialized sales force, developing our commercial capabilities to address such treatment centers is consistent with our corporate strategy of focusing our commercial efforts on large, concentrated markets. We expect to rely on one or more strategic alliances to further the discovery, development and commercialization of our potential acute congestive heart failure drugs outside North America and our potential chronic congestive heart failure drugs worldwide.

Other Research Programs

The cytoskeleton plays a role in a broad array of disease areas beyond cancer and cardiovascular disease. Our drug discovery and development activities focused on other therapeutic areas will build on our investments in and experience gained from our more mature cancer and cardiovascular disease programs. Currently, we are conducting drug discovery activities on several earlier stage research programs that we believe will continue to contribute novel drug candidates to our pipeline over time. In each case, our decision to pursue these programs is based on a therapeutic rationale regarding the role of specific cytoskeletal proteins implicated in the relevant disease and desired treatment.

We currently have several chemical series of antifungal drug candidates in lead optimization stage. Many critically ill patients, who have received bone marrow transplantations, solid organ transplantations, chemotherapy or treatment in an intensive care unit, suffer from systemic fungal infections as a result of suppressed or weakened immune systems. Depending on the patient, their condition and the underlying disease, these infections can be fatal. It is estimated that more than 120,000 patients will be treated with antifungal drugs in 2008. The largest drug in this market is Diflucan® (fluconazole), which had sales of approximately $1.1 billion in 2002. The effectiveness of existing antifungals is limited due to their spectrum of activity, their side effects and the resistance to these drugs that develops over time. The evolving resistance of fungal infections requires drugs that are directed against novel microbial targets with novel mechanisms of action.

Currently, we are characterizing several series of antifungal compounds. Each of these compounds targets one of several fungal mitotic kinesins. As with human mitotic kinesins, fungal mitotic kinesins play a role in the formation and function of the mitotic spindle in fungal cell proliferation. In a preclinical model, compounds arising from this program increased survival in mice with systemic fungal infections. We are currently conducting chemical lead optimization activities and expect to continue these activities through 2004, with the goal of selecting a drug candidate for development and initiating IND-enabling studies in 2005. In addition, we are evaluating specific inhibitors of other compounds against other cytoskeletal proteins implicated in fungal cell proliferation and virulence that may also result in drug candidates for fungal infections.

In addition to the programs mentioned above, we have more than ten other research programs in cancer, cardiovascular disease, inflammatory diseases, asthma, high blood pressure and other therapeutic areas. In each of these areas, there is a scientific and therapeutic rationale for modulating a specific cytoskeletal protein pathway or multi-protein system for the treatment of disease that guides our activities. For example, we have a research program designed to find anti-inflammatory drug candidates by targeting specific cytoskeletal proteins involved in cell movement. We have identified compounds that inhibit the function of a key cytoskeletal protein involved in the

migration of inflammatory cells into diseased tissues. Furthermore, we have identified, characterized and are now seeking to chemically optimize compounds that inhibit smooth muscle contractility. Our objective for this research program is to discover potential drug candidates for high blood pressure, asthma and other diseases.

Our Cell Biology Driven Approach to Drug Discovery and Development

All of our compounds in discovery and development have been discovered internally using our cell biology driven approach and proprietary automated technologies.

Cell Biology Driven Approach. We believe that the human cell represents a comprehensive environment in which the full complement of proteins and biological pathways and systems operate, and is therefore the most appropriate context for drug discovery. Unlike the conventional drug discovery approach that typically focuses on a singular molecular target or protein in isolation, we focus on each protein along an entire biological pathway or in multi-protein systems that better represent the natural environment of the cell in which the target proteins function. We then seek to identify the most appropriate protein target or targets, as well as multiple effective ways to chemically modulate each target to elicit the appropriate cellular response without other effects and thereby more likely achieve a desired therapeutic effect. We believe that this approach maximizes the chance of finding the preferred protein target implicated in a particular disease and provides multiple opportunities for success within each target-based drug discovery and development program. Our approach to drug discovery and development may thereby increase the productivity and likelihood of success of our research and development activities compared to the more customary approach practiced by other companies.

Proprietary Drug Discovery Technologies. Our proprietary automated technologies, most notably our PUMA system and Cytometrix technologies, enable early identification and prioritization of drug candidates.

Our PUMA system is a high-throughput screening platform comprised of a series of automated proprietary multi-protein biochemical assays designed to comprehensively screen large compound libraries to yield chemical entities that specifically modulate each of several cytoskeletal molecular motor proteins. To date, we have applied the PUMA system to perform more than 20 million assays, against an in-house library of approximately 500,000 small molecule compounds and a diverse group of molecular motor protein targets. Unlike many screening platforms, these technologies allow us to analyze protein pathway activity and complexity in a high-throughput format that we believe is more predictive of the natural cellular environment. We complement this system with a customized suite of secondary and supplemental biochemical assays.

The PUMA system leverages our focus and expertise in cytoskeletal biology and is a highly sensitive and specific screen for both inhibitors and activators of molecular motor proteins such as mitotic kinesin inhibitors in our cancer program and activators of cardiac myosin in our cardiovascular disease program. We screen small molecule members of our compound library against specific cytoskeletal targets, as well as against related proteins that mediate other cellular functions, to ensure that we identify compounds that modulate our protein targets of interest in a highly potent, specific and understandable manner.

We have developed our Cytometrix technologies as an automated cell biology platform that is an integral part of our small molecule drug discovery process. Cytometrix technologies are our suite of automated and digital microscopy assays that enable us to screen for potency and specificity against multiple biological targets in cells, facilitating the early identification and rejection of those compounds that may have unintended effects and that may subsequently give rise to toxicities. By eliminating undesirable compounds earlier in the drug discovery process, we can focus our attention and resources on the most promising drug candidates. As a result, we believe we minimize investment on commercially unattractive compounds and we can devote more resources to

understanding, qualifying and optimizing the compounds that are more likely to yield safe and effective drug candidates.

Cytometrix technologies systematically and comprehensively measure responses of individual human cells to potential drug candidates across multiple experimental conditions. For example, in our cancer program, Cytometrix technologies measure, on a cell-by-cell basis, the number of cells at each stage of cell division and cell death and characterize the type of cell death. This is accomplished by combining the same microscope-based approach that has characterized biological research in the past with modern robotic cell handling, digital imaging, image segmentation and analysis and information handling software technologies.

Cytometrix technologies enable us to efficiently analyze the effects of individual compounds against all proteins simultaneously on a cell-by-cell basis in contrast to assessing more simple outputs of a compound against a single molecular target as is practiced in most other screening systems. Cytometrix technologies profile both existing drugs and small molecule compounds arising out of our drug discovery activities to create detailed cell-by-cell reports of an individual compound's biological response. In 2003, Cytometrix technologies measured hundreds of variables across each of over 800 million human cells. The resulting information is quantitative and reproducible, allowing prioritization of potential drug candidates by identifying those compounds with certain unintended cellular effects. We believe Cytometrix technologies provide additional and potentially complementary information to gene and protein expression pattern analyses because they measure, cell-by-cell, the response of a network of integrated proteins within their natural environment, the human cell.

Attractive small molecule compounds, first identified in primary screening against cytoskeletal protein targets using the PUMA system, are more thoroughly profiled using Cytometrix technologies for secondary screening. These technologies generate quantifiable and reproducible cell-based profiles that fingerprint the cellular responses of diverse molecular mechanisms of drug action. Through the integrated use of our PUMA system and Cytometrix technologies, we are able to efficiently focus our efforts towards those compounds that are directed towards novel cytoskeletal protein targets and that are more likely to yield attractive drug candidates.

Advanced Small Molecule Chemistries. We have assembled a small molecule compound library containing approximately 500,000 compounds. We designed this library to maximize diversity and drug-like characteristics. We support this library with a fully automated infrastructure for compound handling and housing, thus allowing rapid and accurate robotic integration of this chemistry resource with our PUMA system and Cytometrix technologies. We utilize our chemistry technologies together with our expertise in cell biology, pharmacology, drug metabolism and pharmacokinetics for the rapid identification and advancement of attractive compounds and potential drug candidates.

Discovery Informatics. We have organized our drug discovery operations based on the principle that aggregating informatics across biology and chemistry leads to predictive approaches to target identification, compound analoging and lead optimization, as well as enhances the speed, efficiency and yield of our drug discovery and development process. In support of this principle, we have also created a powerful discovery informatics infrastructure that efficiently manages large and complex data sets representing valuable cell biology driven and biochemical research insights across state-of-the-art chemoinformatics, bioinformatics and genomics resources.

Our Corporate Strategy

Our goal is to become a fully-integrated biopharmaceutical company focused on discovering, developing and commercializing novel drugs to treat cancer, cardiovascular disease and other disease areas. We intend to achieve this goal by:

Focusing on the cytoskeleton.

We focus our drug discovery activities on the cytoskeleton because its role in disease has been scientifically and commercially validated. We believe that our unique understanding of the cytoskeleton will enable us to discover drug candidates with novel mechanisms of action and which may avoid the limitations of current drugs. We believe that there are few, if any, other companies that have focused specifically on the cytoskeleton.

Because the cytoskeleton has been validated in a wide array of human disease, we intend to pursue drug discovery programs across a number of therapeutic areas and we believe we can leverage research and development investments made for a program directed at one therapeutic area to programs directed at other therapeutic areas. This may facilitate our building a diverse pipeline of drug candidates in a cost-effective fashion.

Leveraging our cell biology driven approach and proprietary technologies to increase the speed, efficiency and yield of our drug discovery and development process.

Our innovative cell biology driven research approach and proprietary technologies, including our PUMA system and Cytometrix technologies, enhance the speed, efficiency and yield of the discovery and, potentially, the development process. We believe we can identify and focus on the most promising compounds earlier in the drug discovery process. We do this by quickly and efficiently eliminating those compounds that exhibit potential toxicities. As a result, we may save time and discovery and development resources and reduce the occurrence of later-stage failures. This early intervention and screening may result in a higher yield of drug candidates with a greater chance of clinical success.

Pursuing multiple drug candidates for each cytoskeletal protein target and broad clinical trials for select drug candidates.

For each of our programs, we characterize several drug candidates for each of a number of cytoskeletal protein targets that act together in a protein pathway or in a multi-protein system. By leveraging our drug discovery efficiencies, we intend to identify, for each cytoskeletal protein target, multiple potential drug candidates that we may progress into clinical development. We believe that this approach of pursuing a portfolio of potential drug candidates for each cytoskeletal protein target in parallel allows us to increase our potential for commercial success.

Because the cytoskeleton plays a fundamental role in many related diseases, we have an opportunity in those diseases to conduct broad and comprehensive Phase II clinical development trials programs for our drug candidates across multiple related disease areas. We believe that by pursuing this approach we increase the probability of these drug candidates achieving success in clinical trials and maximize the commercial potential related to these programs.

Establishing select strategic alliances to accelerate our drug development programs while preserving significant development and commercial rights.

We intend to selectively enter into strategic alliances to advance our drug discovery and development programs or technologies, to obtain financial support and to leverage the therapeutic area expertise and development and commercialization resources of our partners to

accelerate the development of our drug candidates. Where appropriate, we plan to maintain certain rights in development of potential drug candidates and commercialization of potential drugs arising from our alliances so we can build our internal clinical development and sales and marketing capabilities while also maintaining a significant share of the potential revenues for any products arising from each alliance.

Building development and commercialization capabilities directed at large concentrated markets.

We focus our drug discovery and development efforts on large commercial market opportunities in concentrated markets, such as cancer and acute congestive heart failure. By focusing on concentrated markets, we believe that a company at our stage of development can compete effectively within these markets against larger, more established companies with more financial resources. For each opportunity focused on these markets, we intend to build clinical development and sales and marketing capabilities in order to become a fully-integrated biopharmaceutical company that can develop and commercialize drugs that arise from our research programs.

Our Strategic Alliances

GlaxoSmithKline. In June 2001, we formed a strategic alliance with GSK to discover, develop and commercialize novel small molecule drugs targeting KSP and certain other cytoskeletal proteins involved in cell proliferation for applications in the treatment of cancer and other diseases. This strategic alliance leverages our expertise in the biology and pharmacology of mitotic kinesins and GSK's pharmaceutical research, development and commercialization capabilities. Under this strategic alliance, GSK has made a $14.0 million upfront cash payment and an initial $14.0 million investment in our equity. GSK has also committed to reimburse our FTEs conducting research in connection with the strategic alliance and to make additional milestone payments and pay royalties based on product sales. As of December 31, 2003, we have received $19.7 million in FTE and other reimbursement and $3.2 million in precommercialization milestone payments. GSK is responsible for worldwide development of drug candidates and commercialization of drugs arising from the strategic alliance, but we retain a product-by-product option to co-fund certain later-stage development activities in exchange for a higher royalty rate and a further option to secure co-promotion rights in North America. In the event we exercise a co-promotion option for a product, we are entitled to receive from GSK reimbursement of certain sales force costs that we may incur in support of our commercial activities. We are eligible to receive precommercialization milestone payments ranging from $30.0 to $50.0 million for each mitotic kinesin target for products directed towards each target. In addition, our royalty rate increases based on our level of participation in funding of certain later-stage development activities and as total worldwide sales escalate for each drug developed and commercialized under the strategic alliance. We expect that the royalties to be paid on future sales of SB-715992 and SB-743921 could potentially increase to an upper-teen percentage rate based on our anticipated level of co-funding of certain later-stage development activities of the drug candidates and increasing product sales.

At predefined times during the research term of the collaboration, we are entitled to select certain mitotic kinesin targets and related compounds for independent research and development at our expense. If we elect to pursue a compound independently, then at a predetermined time during clinical development, GSK will have an option to return the compound to the joint activities of the collaboration subject to GSK's payment to us of both an amount based on a premium over our research and development costs and also an enhanced royalty on product sales. In the event that GSK does not exercise its option with respect to a compound, we may independently develop and commercialize that compound, subject to a royalty on product sales payable to GSK.

Under our strategic alliance, GSK has commenced a comprehensive Phase II clinical trials program designed to evaluate SB-715992 in parallel clinical trials across multiple tumor types in

2003. We expect GSK to commence Phase I clinical trials of SB-743921 to begin in early 2004. Additionally, through the strategic alliance, we are performing target validation, hit identification and lead characterization and optimization on other cytoskeletal targets, to select potential drug candidates that may similarly be advanced to clinical development.

AstraZeneca. In December 2003, we formed an exclusive strategic alliance with AstraZeneca to develop automated imaging-based cellular phenotyping and analysis technologies for the *in vitro* prediction of hepatotoxicity, or toxicity of the liver, a common reason for failure of drug candidates in clinical development. Under this strategic alliance, AstraZeneca has committed to reimburse us for four FTEs in our technology department over the two-year research term, pay annual licensing fees and make a milestone payment to us upon the successful achievement of certain agreed-upon performance criteria. If we successfully achieve the agreed-upon performance criteria and AstraZeneca elects to license certain technology and intellectual property developed pursuant to the collaboration in exchange for additional annual license payments to us for the full potential maximum term of such license, then the combined FTE, milestone and licensing payments to us will total approximately $9.5 million. Through March 31, 2004, we have received $374,000 in FTE reimbursement payments from AstraZeneca.

Other Strategic Alliances. We have advanced our Cytometrix technologies through our Cytometrix Technologies Development Partner Program with each of Eisai Research Institute, Novartis Pharma AG, Tularik Inc. and Vertex Pharmaceuticals, Inc. These partners provided us with research compounds that were profiled using our Cytometrix technologies. We have completed our obligations associated with these relationships.

We formed a strategic alliance with Exelixis, Inc. in December 2001 to design and generate diverse, small molecule compound libraries. We and Exelixis may use these libraries for screening in our respective drug discovery programs. Exelixis may use its proprietary combinatorial chemistry platform to synthesize compounds designed in collaboration with us. The synthesized compounds will be jointly owned and each company will have the right to use the compounds in its own internal research programs, as well as in its respective collaborative research efforts.

Our Patents and Intellectual Property

Our policy is to patent the technology, inventions and improvements that we consider important to the development of our business. As of December 31, 2003, we had 72 issued United States patents, notices of allowance on six additional United States patent applications and over 100 additional pending United States and foreign patent applications. In addition, we have an exclusive license to five United States patents and more than 20 pending United States and foreign patent applications from the University of California and Stanford University. We also rely on trade secrets, technical know-how and continuing innovation to develop and maintain our competitive position.

We seek to protect our proprietary information by requiring our employees, consultants, contractors, outside partners and other advisers to execute nondisclosure and assignment of invention agreements upon commencement of their employment or engagement, through which we seek to protect our intellectual property. Agreements with our employees also prevent them from bringing the proprietary rights of third parties to us. We also require confidentiality or material transfer agreements from third parties that receive our confidential data or materials.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our technologies and drug candidates as well as successfully defending these patents against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them.

The patent positions of pharmaceutical, biotechnology and other life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal

principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such patents has emerged to date in the United States. The patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- we 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;
- it is possible that none of our pending patent applications or none of the pending patent applications of our licensors will result in issued patents;
- our issued patents and issued patents of our licensors 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 patent applications or patents may be subject to interference, opposition or similar administrative proceedings;
- we may not develop additional proprietary technologies that are patentable; or
- the patents of others may have an adverse effect on our business.

The defense and prosecution of intellectual property suits, interferences, oppositions and related legal and administrative proceedings in the United States are costly, time consuming to pursue, and result in diversion of resources. The outcome of these proceedings is uncertain and could significantly harm our business.

We also rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, partners and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

The pharmaceutical, biotechnology and other life sciences industries are characterized by the existence of a large number of patents and frequent litigation based upon allegations of patent infringement. As our drug candidates progress toward commercialization, the possibility of an infringement claim against us increases. While we attempt to ensure that our drug candidates and the methods we employ to manufacture them do not infringe other parties' patents and other proprietary rights, competitors or other parties may assert that we infringe on their proprietary rights.

In particular, we are aware of an issued United States patent and at least one pending United States patent application assigned to Curis, Inc. relating to certain compounds in the quinazolinone class. SB-715992 falls into this class of compounds. The Curis patent claims a method of use for inhibiting signaling the hedgehog pathway using certain quinazolinones. We are also aware that

Curis has pending applications in Europe, Japan, Australia and Canada with claims covering compositions of certain quinazolinone compounds. Curis or a third party may assert that the sale of SB-715992 candidate may infringe one or more of these or other patents.

We believe that we have valid defenses to an assertion that SB-715992 infringes the Curis patent. However, we cannot guarantee that a court would find such defenses valid. We have not attempted to obtain a license to this patent. If we decide to obtain a license to this patent, we cannot guarantee that we would be able to obtain such a license on commercially reasonable terms, or at all.

In addition, we are aware of a European patent application assigned to Cellomics, Inc. relating to an automated method for analyzing cells. The Cellomics application is proceeding to grant in Europe. We are also aware that Cellomics has pending applications in the United States, Canada, Japan and Australia. Cellomics or a third party may assert that our Cytometrix technologies fall within the scope of the Cellomics European patent application and thus, may infringe one or more of these or other patents. We believe that we have valid defenses to such an assertion. Moreover, the grant of the European patent may be opposed by one or more parties. However, we cannot guarantee that a court would find such defenses valid or that such opposition would be successful. We have not attempted to obtain a license to this patent. If we decide to obtain a license to this patent, we cannot guarantee that we would be able to obtain such a license on commercially reasonable terms, or at all.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture, marketing and distribution of drugs. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion of our drug candidates and drugs.

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FFDCA, and implementing regulations. The process required by the FDA before our drug candidates may be marketed in the United States generally involves the following:

- completion of extensive preclinical laboratory tests, preclinical animal studies and formulation studies all performed in accordance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an IND application which must become effective before clinical trials may begin;
- performance of adequate and well-controlled clinical trials to establish the safety and efficacy of the product candidate for each proposed indication;
- submission of a NDA to the FDA;
- satisfactory completion of an FDA preapproval inspection of the manufacturing facilities at which the product is produced to assess compliance with current GMP, or cGMP, regulations; and
- FDA review and approval of the NDA prior to any commercial marketing, sale or shipment of the drug.

The testing and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our drug candidates will be granted on a timely basis, if at all.

Preclinical tests include laboratory evaluation of product chemistry, formulation and stability, as well as studies to evaluate toxicity in animals. The results of preclinical tests, together with manufacturing information and analytical data, are submitted as part of an IND application to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Our submission of an IND, or those of our collaborators, may not result in FDA authorization to commence a clinical trial. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development, and the FDA must grant permission before each clinical trial can begin. Further, an independent institutional review board, or IRB, for each medical center proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that center and it must monitor the study until completed. The FDA, the IRB, or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive Good Clinical Practice, or GCP, regulations and regulations for informed consent.

Clinical Trials. For purposes of NDA submission and approval, clinical trials are typically conducted in the following three sequential phases, which may overlap:

- *Phase I:* Studies are initially conducted in a limited population to test the drug candidate for safety, dose tolerance, absorption, metabolism, distribution and excretion in healthy humans or, on occasion, in patients, such as cancer patients. In some cases, particularly in cancer trials, a sponsor may decide to run what is referred to as a “Phase Ib” evaluation, which is a second safety-focused Phase I clinical trial typically designed to evaluate the impact of the drug candidate in combination with currently approved drugs.

- *Phase II:* Studies are generally conducted in a limited patient population to identify possible adverse effects and safety risks, to determine the efficacy of the drug candidate for specific targeted indications and to determine dose tolerance and optimal dosage. Multiple Phase II clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase III clinical trials. In some cases, a sponsor may decide to run what is referred to as a “Phase IIb” evaluation, which is a second, confirmatory Phase II clinical trial that could, if positive and accepted by the FDA, serve as a pivotal clinical trial in the approval of a drug candidate.

- *Phase III:* These are commonly referred to as pivotal studies. When Phase II clinical trials demonstrate that a dose range of the drug candidate is effective and has an acceptable safety profile, Phase III clinical trials are undertaken in large patient populations to further evaluate dosage, to provide substantial evidence of clinical efficacy and to further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites.

In some cases, the FDA may condition approval of an NDA for a drug candidate on the sponsor’s agreement to conduct additional clinical trials to further assess the drug’s safety and effectiveness after NDA approval. Such post-approval trials are typically referred to as Phase IV clinical trials.

New Drug Application. The results of drug candidate development, preclinical testing and clinical trials are submitted to the FDA as part of an NDA. The NDA also must contain extensive manufacturing information. Once the submission has been accepted for filing, by law the FDA has 180 days to review the application and respond to the applicant. The review process is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory

committee, but it generally follows such recommendations. The FDA may deny approval of an NDA if the applicable regulatory criteria are not satisfied, or it may require additional clinical data or an additional pivotal Phase III clinical trial. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data from clinical trials are not always conclusive and FDA may interpret data differently than we or our collaborators interpret data. Once issued, the FDA may withdraw drug approval if ongoing regulatory requirements are not met or if safety problems occur after the drug reaches the market. In addition, the FDA may require testing, including Phase IV clinical trials, and surveillance programs to monitor the effect of approved products which have been commercialized, and the FDA has the power to prevent or limit further marketing of a drug based on the results of these post-marketing programs. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved label. Further, if there are any modifications to the drug, including changes in indications, labeling, or manufacturing processes or facilities, we may be required to submit and obtain FDA approval of a new NDA or NDA supplement, which may require us to develop additional data or conduct additional preclinical studies and clinical trials.

Fast Track Designation. The FDA's fast track program is intended to facilitate the development and to expedite the review of drugs that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast track program, the sponsor of a new drug candidate may request the FDA to designate the drug candidate for a specific indication as a fast track drug concurrent with or after the filing of the IND for the drug candidate. The FDA must determine if the drug candidate qualifies for fast track designation within 60 days of receipt of the sponsor's request.

If fast track designation is obtained, the FDA may initiate review of sections of an NDA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the time period specified in the Prescription Drug User Fees Act, which governs the time period goals the FDA has committed to reviewing an application, does not begin until the complete application is submitted. Additionally, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

In some cases, a fast track designated drug candidate may also qualify for one or more of the following programs:

- ***Priority Review.*** Under FDA policies, a drug candidate is eligible for priority review, or review within a six-month time frame from the time a complete NDA is accepted for filing, if the drug candidate provides a significant improvement compared to marketed drugs in the treatment, diagnosis or prevention of a disease. A fast track designated drug candidate would ordinarily meet the FDA's criteria for priority review. We cannot guarantee any of our drug candidates will receive a priority review designation, or if a priority designation is received, that review or approval will be faster than conventional FDA procedures, or that FDA will ultimately grant drug approval.

- ***Accelerated Approval.*** Under the FDA's accelerated approval regulations, the FDA is authorized to approve drug candidates that have been studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit to patients over existing treatments based upon either a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than patient survival. In clinical trials, surrogate endpoints are alternative measurements of the symptoms of a disease or condition that are substituted for measurements of observable clinical symptoms. A drug candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of

Phase IV or post-approval clinical trials to validate the surrogate endpoint or confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or to validate a surrogate endpoint or confirm a clinical benefit during post-marketing studies, will allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

When appropriate, we and our collaborators intend to seek fast track designation or accelerated approval for our drug candidates. We cannot predict whether any of our drug candidates will obtain a fast track or accelerated approval designation, or the ultimate impact, if any, of the fast track or the accelerated approval process on the timing or likelihood of FDA approval of any of our drug candidates.

Satisfaction of FDA regulations and requirements or similar requirements of state, local and foreign regulatory agencies typically takes several years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease. Typically, if a drug candidate is intended to treat a chronic disease, as is the case with some of the drug candidates we are developing, safety and efficacy data must be gathered over an extended period of time. Government regulation may delay or prevent marketing of drug candidates for a considerable period of time and impose costly procedures upon our activities. The FDA or any other regulatory agency may not grant approvals for new indications for our drug candidates on a timely basis, if at all. Even if a drug candidate receives regulatory approval, the approval may be significantly limited to specific disease states, patient populations and dosages. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a drug may result in restrictions on the drug or even complete withdrawal of the drug from the market. Delays in obtaining, or failures to obtain, regulatory approvals for any of our drug candidates would harm our business. In addition, we cannot predict what adverse governmental regulations may arise from future United States or foreign governmental action.

Other regulatory requirements. Any drugs manufactured or distributed by us or our collaborators pursuant to FDA approvals are subject to continuing regulation by the FDA, including recordkeeping requirements and reporting of adverse experiences associated with the drug. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as warning letters, suspension of manufacturing, seizure of product, injunctive action or possible civil penalties. We cannot be certain that we or our present or future third-party manufacturers or suppliers will be able to comply with the cGMP regulations and other ongoing FDA regulatory requirements. If our present or future third-party manufacturers or suppliers are not able to comply with these requirements, the FDA may halt our clinical trials, require us to recall a drug from distribution, or withdraw approval of the NDA for that drug.

The FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet. A company can make only those claims relating to safety and efficacy that are approved by the FDA. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available drugs for uses that are not described in the drug's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, impose stringent restrictions on manufacturers' communications regarding off-label use.

Competition

We compete in the segments of the pharmaceutical, biotechnology and other related markets that address cancer, cardiovascular disease and antifungal applications, each of which is highly competitive. We face significant competition from most pharmaceutical companies as well as biotechnology companies that are also researching and selling products designed to address cancer, cardiovascular disease or antifungal applications. Many of our competitors have significantly greater financial, manufacturing, marketing and drug development resources than we do. Large pharmaceutical companies in particular have extensive experience in clinical testing and in obtaining regulatory approvals for drugs. These companies also have significantly greater research capabilities than we do. In addition, many universities and private and public research institutes are active in cancer, cardiovascular disease and antifungal research, some in direct competition with us.

We believe that our ability to successfully compete will depend on, among other things:

- efficacy, safety and reliability of our drug candidates;
- the speed at which we develop drug candidates;
- completion of clinical development and laboratory testing and obtaining regulatory approvals for drug candidates;
- timing and scope of regulatory approvals;
- our ability to manufacture and sell commercial quantities of a product to the market;
- product acceptance by physicians and other health care providers;
- quality and breadth of our technology;
- skills of our employees and our ability to recruit and retain skilled employees;
- protection of our intellectual property;
- cash flows under existing and potential future arrangements with licensees, partners and other parties; and
- availability of substantial capital resources to fund development and commercialization activities.

It is possible that our competitors will develop drug candidates and market drugs that are less expensive and more effective than our future drugs or that will render our drugs obsolete. It is also possible that our competitors will commercialize competing drugs before we or our partners can launch any drugs developed from our drug candidates. If approved for marketing by the FDA, depending on the approved clinical indication, our cancer drug candidates could compete against existing cancer treatments such as paclitaxel or docetaxel, vincristine, vinorelbine or navelbine and potentially against other novel cancer drug candidates that are currently in development such as those that are reformulated taxanes, other tubulin binding compounds or epothilones. If our cardiovascular drug candidate is approved for marketing by the FDA for acute heart failure, that compound could compete against current generically available therapies, such as milrinone, dobutamine or digoxin or newer drugs such as nesiritide as well as potentially against other novel drug candidates in development such as levosimendan. Companies that currently sell drugs in our markets of interest include, for example, Bristol-Myers Squibb, Abbott, Aventis, Johnson & Johnson, Merck and Pfizer. Other companies that are early-stage are currently developing alternative treatments and products that could compete with our drugs. These organizations also compete with us to attract qualified personnel and potential parties for acquisitions, joint ventures or other strategic alliances.

Legal Proceedings

We are not involved in any legal proceedings.

Facilities

Our facilities consist of approximately 53,408 square feet of research and office space. We lease 50,195 square feet located at 280 East Grand Avenue in South San Francisco, California until 2013 with an option to renew that lease over that timeframe. We also lease 3,213 square feet at 250 East Grand Avenue in South San Francisco, California on a month-to-month basis.

Employees

As of December 31, 2003, our workforce consisted of 163 full-time employees, 57 of whom hold Ph.D. or M.D. degrees, or both, and 30 of whom hold other advanced degrees. Of our total workforce, 131 are engaged in research and development and 32 are engaged in business development, finance and administration. We have no collective bargaining agreements with our employees, and we have not experienced any work stoppages. We believe that our relations with our employees are good.

MANAGEMENT

Executive Officers and Directors

Our directors and executive officers as of January 15, 2004 are as follows:

Name	Age	Position
James H. Sabry, M.D., Ph.D.	45	President and Chief Executive Officer; Director
Robert I. Blum	40	Executive Vice President, Corporate Development and Finance and Chief Financial Officer
David J. Morgans, Jr., Ph.D.	51	Senior Vice President, Drug Discovery and Development
Jay K. Trautman, Ph.D.	45	Vice President, Technology
Gail A. Sheridan	55	Vice President, Human Resources
Stephen Dow(1)(3)	48	Director
A. Grant Heidrich, III(1)(2)	51	Director
Charles Homcy, M.D.	55	Director
William J. Rutter, Ph.D.(1)(2)(3)	76	Director
Michael Schmertzler	51	Director
James A. Spudich, Ph.D.(3)	62	Director

(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

(3) Member of the Nominating and Governance Committee.

James H. Sabry, M.D., Ph.D. co-founded our company in August 1997 and has served as our President and Chief Executive Officer and as a member of our board of directors since August 1997. Prior to that he held faculty positions at the University of California, San Francisco, from 1989 to 1998, and Harvard Medical School from 1984 to 1987. Dr. Sabry received a M.D. from Queens University and a Ph.D. in Cell Biology from the University of California, San Francisco.

Robert I. Blum has served as our Executive Vice President, Corporate Development and Finance and Chief Financial Officer since January 2004. From October 2001 to December 2003, he served as our Senior Vice President, Corporate Development and Finance and Chief Financial Officer. From July 1998 to September 2001, Mr. Blum was our Vice President, Business Development. Prior to joining us in July 1998, he was Director, Marketing at COR Therapeutics, Inc., a biopharmaceutical company from 1996. From 1991 to 1996, he was Director, Business Development at COR Therapeutics. Prior to this, Mr. Blum performed roles of increasing responsibility in sales, marketing and other pharmaceutical business functions at Marion Laboratories, Inc. and Syntex Laboratories, Inc. Mr. Blum received B.A. degrees in Human Biology and Economics from Stanford University and a M.B.A. from Harvard Business School.

David J. Morgans, Jr., Ph.D. has served as our Senior Vice President, Drug Discovery and Development since October 2003. From March 2002 to September 2003, he served as our Senior Vice President, Drug Discovery and, from January 2002 to February 2002, he served as our Vice President, Drug Discovery. From October 2000 to December 2001, he served as our Vice President Chemistry. From July 1998 to October 2000, Dr. Morgans served as Vice President of Research for Iconix Pharmaceuticals, Inc., a biopharmaceutical company. From March 1995 to July 1998, he was Vice President, Inflammatory Diseases at Roche Bioscience, a pharmaceutical company. From 1983 to 1995, he held various positions at Syntex Laboratories, Inc., most recently as Director, Medicinal Chemistry. From 1980 to 1983, Dr. Morgans was Assistant Professor of Chemistry at University of California, Santa Cruz. Dr. Morgans received a B.S. in Chemistry from Saint Joseph's University in Philadelphia and a Ph.D. in Chemistry from Columbia University.

Jay K. Trautman, Ph.D. has served as our Vice President, Technology since May 2003. He served as our Vice President, Cell Technologies from June 2002 to May 2003. From March 2000 to June 2002, he served as the Chief Executive Officer of Praelux Incorporated, a research and development company and wholly owned subsidiary of Amersham Biosciences Corp. From March 1996 to March 2000, Dr. Trautman held a variety of positions at Praelux and its predecessor company, SEQ Ltd., and was responsible for directing research and development activities. Dr. Trautman received a B.S. in Chemistry from the University of Washington and a Ph.D. in Chemistry from Cornell University.

Gail A. Sheridan has served as our Vice President, Human Resources since January 2004. She joined Cytokinetics as a consultant in March 2003 and became an employee in January 2004. She was sole proprietor of Human Resources Consulting from January 1995 to December 2003. From 1993 to 1995, she was Director, Human Resources at SyStemix Incorporated. From 1990 to 1993, she was Director, Human Resources at Software Publishing Corporation. From 1986 to 1990, Ms. Sheridan was a Principal at Telemarketing Solutions. From 1983 to 1986, she held Vice President positions at Bank of America. Ms. Sheridan holds a B.A. in Political Science from the University of California at Berkeley and an M.A. in American Studies from the University of Southern California.

Stephen Dow has served as a member of our board of directors since April 1999. Mr. Dow has been a General Partner with Sevin Rosen Funds, a venture capital firm, since 1983. Since 1989, Mr. Dow has served on the board of directors of Citrix Systems, an enterprise software company, and has been Citrix's Chairman of the Board since May 2002. Mr. Dow received a B.A. in Economics and a M.B.A. from Stanford University.

A. Grant Heidrich, III has served as a member of our board of directors since April 1999. Mr. Heidrich has been a Managing Director of certain Mayfield funds, each a venture capital firm, since 1983. Mr. Heidrich currently serves as Chairman of the board of directors of Tularik, Inc., a biotechnology company, and as the Lead Outside Director of Millennium Pharmaceuticals, Inc., a biopharmaceutical company. Mr. Heidrich received a B.A. in Human Biology from Stanford University and a M.B.A. from Columbia University.

Charles Homcy, M.D. has served as a member of our board of directors since February 2003. Since November 2003, Dr. Homcy has served as Chief Executive Officer of Portola Pharmaceuticals, Inc., a biopharmaceutical company. From January 2003 to November 2003, Dr. Homcy served as Senior Research and Development Advisor of Millennium Pharmaceuticals. From February 2002 to December 2002, Dr. Homcy served as the President of Research and Development at Millennium Pharmaceuticals. From 1995 to February 2002, he served as Executive Vice President, Research and Development of COR Therapeutics, Inc., where he served as a member of the board of directors from 1998 to February 2002. From 1994 to March 1995, Dr. Homcy was President of the Medical Research Division of American Cyanamid Company-Lederle Laboratories (now a division of Wyeth-Ayerst Laboratories). From 1990 to 1994, Dr. Homcy was Executive Director of the Cardiovascular and Central Nervous System Research Section at Lederle Laboratories. Dr. Homcy currently serves on the board of directors of Millennium Pharmaceuticals and Kosan Biosciences, Inc., a biopharmaceutical company. Dr. Homcy received a A.B. in Biology and a M.D. from Johns Hopkins University.

William J. Rutter, Ph.D. has served as a member of our board of directors since May 1999. Since July 2002, Dr. Rutter has been the Chairman, Chief Executive Officer and a principal shareholder of Synergenics LLC, a biotechnology consulting company. From 1981 until May 1999, Dr. Rutter served as Chairman of the Board of Directors of Chiron Corporation, a biopharmaceutical, vaccine and blood testing company that he co-founded. He is currently Chairman Emeritus of Chiron. From August 1983 to April 1989, Dr. Rutter was the Director of the Hormone Research Institute at the University of California, San Francisco. Since January 2000, Dr. Rutter has served on the board of directors of Sangamo Biosciences, Inc., a biotechnology company. Dr. Rutter received a B.A. in

Biochemistry from Harvard University, a M.S. in Biochemistry from the University of Utah and a Ph.D. in Biochemistry from the University of Illinois.

Michael Schmertzler has served as a member of our board of directors since April 2003. Since 2001, Mr. Schmertzler has been a Managing Director of Aries Advisors, LLC, the sub-advisor to Credit Suisse First Boston Equity Partners, L.P., a private equity fund, and the Chair of the investment committee. From 1997 to 2001, Mr. Schmertzler was Co-Head of United States and Canadian Private Equity at Credit Suisse First Boston, an investment banking company. Prior to 1997, Mr. Schmertzler held various management positions with Morgan Stanley and its affiliates, including President of Morgan Stanley Leveraged Capital Funds and Managing Director, and was Managing Director and Chief Financial Officer of Lehman Brothers Kuhn Loeb, an investment banking firm. Mr. Schmertzler received a B.A. from Yale College in Molecular Biophysics and Biochemistry, History and City Planning and a M.B.A. from the Harvard Business School.

James A. Spudich, Ph.D. co-founded our company in August 1997 and has served as a member of our board of directors since August 1997. From September 1998 to September 1999, he served as our Principal Scientist. Dr. Spudich is the Douglass M. Nola Leishman Professor in Cardiovascular Disease and Professor of Biochemistry and Developmental Biology at Stanford University where he has been a member of the faculty since 1977. From 1994 to 1998, Dr. Spudich served as Chairman of Stanford University's Department of Biochemistry. From 1979 to 1984, he was Chairman of Stanford's Department of Structural Biology. He was elected a member of the American Academy of Arts and Sciences in 1997 and a member of the National Academy of Sciences in 1991. Dr. Spudich is also a member of our scientific advisory board. Dr. Spudich received a B.S. in Chemistry from the University of Illinois and a Ph.D. in Biochemistry from Stanford University.

Scientific Advisory Board

The following individuals are members of our scientific advisory board:

John C. Chabala, Ph.D. is a founder and member of the Management Scientific Advisory Board of Pharmacopeia, Inc., a combinatorial chemistry and chemoinformatics company, where he served as President from 1993 to 1996 and Chief Scientific Officer from 1993 to 1997. Prior to joining Pharmacopeia, Dr. Chabala was Vice President of Discovery Chemistry at Bristol-Myers Squibb from 1991 to 1993. Prior to that, he was with Merck ultimately as Executive Director, Basic Chemistry, supervising a variety of medicinal and other chemistry programs. Dr. Chabala received a B.S. in Chemistry from Bucknell University, and a Ph.D. in Organic Chemistry from Massachusetts Institute of Technology.

David G. Drubin, Ph.D. is Professor of Genetics in the Department of Molecular and Cell Biology at the University of California, Berkeley, where he has been a member of the faculty since 1988. Dr. Drubin is Associate Editor of Molecular Biology of the Cell, Editor of the Journal of Cell Biology and a member of the editorial board of Trends of Cell Biology. He was elected Co-Chair and Chair of the Gordon Research Conference on the Plant and Fungal Cytoskeleton in 1995 and 1998, respectively, and was Chair of the Program Committee for the 1999 meeting of the American Society of Cell Biology. Dr. Drubin received an A.B. in Biochemistry from the University of California at Berkeley, and a Ph.D. in Biochemistry from the University of California at San Francisco.

Lawrence S. B. Goldstein, Ph.D. co-founded our company in August 1997. Dr. Goldstein has been a member of the University of California, San Diego faculty since 1995, where he is Professor of Cellular and Molecular Medicine and an Investigator in the Howard Hughes Medical Institute. From 1984 to 1993, he was Professor of Cellular and Developmental Biology at Harvard University. Dr. Goldstein is a member of the editorial boards of Molecular Biology of the Cell and the Journal of Cell Biology. He is also Associate Editor of the Annual Review of Cell and Developmental Biology. Dr. Goldstein received a B.A. in Biology from the University of California, San Diego, and a Ph.D. in Genetics from the University of Washington.

Eric M. Gordon, Ph.D. held the position of Senior Vice President of Research at Sunesis Pharmaceuticals, Inc. from October 1998 to July 2002. From 1996 to 1998, Dr. Gordon was President, Scientific Founder and Chief Scientific Officer of Versicor. Prior to this, Dr. Gordon served as Vice President of Research and Director of Chemistry at Affymax Research Institute from 1992 to 1996, and from 1990 to 1992, he was the Director of Medicinal Chemistry at The Squibb Institute in Princeton where he began as a Postdoctoral Fellow in 1974. His professional activities include serving as president of the Princeton American Chemical Society, Adjunct Professor of Medicinal Chemistry at the University of Wisconsin, and he was elected an American Association Advancement of Science (AAAS) Fellow. Dr. Gordon received a B.S. and a Ph.D. in Medicinal Chemistry from the University of Wisconsin.

Marc W. Kirschner, Ph.D. is the founding chair of the Department of Cell Biology and the Carl W. Walter Professor of Cell Biology at Harvard Medical School, where he joined the faculty in 1993. Dr. Kirschner was a co-founder of Harvard's Institute of Chemistry and Cell Biology. From 1978 to 1993, Dr. Kirschner was Professor at the University of California, San Francisco. From 1972 to 1978, he was on faculty at Princeton University. Dr. Kirschner is a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and was elected a Foreign Member of the Royal Society of London in 1999. Dr. Kirschner received a B.A. in Chemistry from Northwestern University and received a Ph.D. in Cell Biology from the University of California, Berkeley.

Larry E. Overman, Ph.D. has been a member of the faculty at the University of California, Irvine since 1971, where he is currently a Distinguished Professor of Chemistry. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. Dr. Overman is Editor-in-Chief of Organic Reactions and a member of the Board of Consulting Editors of Tetrahedron Publications. He is a member of the board of directors of Organic Syntheses and Organic Reactions and a member of Pharmacopeia's scientific advisory board. Dr. Overman received a B.A. in Chemistry in 1965 from Earlham College and a Ph.D. in Organic Chemistry in 1969 from the University of Wisconsin.

Thomas D. Pollard, M.D. is the Higgins Professor of Molecular, Cellular and Developmental Biology at Yale University. From 1996 to 2000, Dr. Pollard served as Professor and President of the Salk Institute for Biological Studies in La Jolla, California. From 1977 to 1996, Dr. Pollard directed the Department of Cell Biology at the Johns Hopkins Medical School. From 1993 to 1998, he chaired the Commission on Life Sciences at the National Research Council. Dr. Pollard served as Council Member and President of both the American Society for Cell Biology and the Biophysical Society. Dr. Pollard received a B.A. in Chemistry and Zoology from Pomona College, and a M.D. from Harvard Medical School.

Stephen J. Smith, Ph.D. is a Professor of Molecular and Cellular Physiology at the Stanford University School of Medicine. From 1977 to 1979, Dr. Smith was a Miller Fellow at the University of California, Berkeley. Dr. Smith received a B.S. in Psychology from Reed College, and a Ph.D. in Physiology and Biophysics from the University of Washington.

James A. Spudich, Ph.D. Dr. Spudich's biographical information is provided above.

Ronald D. Vale, Ph.D. co-founded our company in August 1997. Since 1986, Dr. Vale has been a member of the University of California, San Francisco faculty. Dr. Vale was appointed to the Howard Hughes Medical Institute in 1995, and was elected to the National Academy of Sciences in 2001. He serves as the Chair of the Department of Cellular and Molecular Pharmacology at the University of California, San Francisco and is the W. K. Hamilton Distinguished Professor of Anesthesia. Dr. Vale received a B.S. in Biology and Chemistry from the University of California, Santa Barbara, and a Ph.D. in Neurosciences from Stanford University.

Board Composition and Committees

Our board of directors currently consists of seven members. Prior to the closing of this offering, our board of directors will be divided into three classes, with each director serving a three-year term and one class being elected at each year's annual meeting of stockholders. Directors A. Grant Heidrich and William J. Rutter will be in the class of directors whose initial term expires at the 2005 annual meeting of stockholders. Directors James Spudich and Charles Homcy will be in the class of directors whose initial term expires at the 2006 annual meeting of the stockholders. Directors Stephen Dow, Michael Schmertzler and James Sabry will be in the class of directors whose initial term expires at the 2007 annual meeting of stockholders.

Our board of directors currently has an audit committee, a compensation committee and a nominating and governance committee. Directors Stephen Dow, A. Grant Heidrich and William J. Rutter are currently members of the audit committee. The audit committee reviews our internal accounting procedures and consults with and reviews the services provided by our independent accountants. Directors A. Grant Heidrich and William J. Rutter are currently members of the compensation committee. The compensation committee reviews and recommends to the board of directors the compensation and benefits for all of our officers and establishes and reviews general policies relating to compensation and benefits for our other employees. Directors Stephen Dow, James Spudich and William J. Rutter are currently members of the nominating and governance committee. The nominating and governance committee assists our board of directors in the areas of membership selection, evaluation of overall effectiveness of the board of directors and the review of developments in corporate governance practices.

Director Compensation

We reimburse our non-employee directors for their expenses incurred in connection with attending board and committee meetings but do not currently compensate them for their services as board or committee members. Our board of directors has approved a policy for cash compensation of non-employee directors following the offering. Non-employee directors will receive an annual retainer of $15,000 and $750 for attendance to each board and committee meeting or $500 for each such meeting attended by telephone. The Compensation and the Nominating and Governance Committee chairperson shall receive, in lieu of the per meeting fees described above, $1,500 for attendance in person and $1,000 for attendance by telephone; the Audit Committee chairperson shall receive $2,250 for attendance in person and $1,500 for attendance by telephone. We have in the past granted non-employee directors options to purchase our common stock pursuant to the terms of our 1997 Stock Option/ Stock Issuance Plan, and our board continues to have the discretion to grant options to new and continuing non-employee directors. In addition, one director has purchased shares of our common stock pursuant to restricted stock purchase agreements, subject to a repurchase right in our favor. For a discussion of such director's restricted stock purchase agreement, see "Related Party Transactions."

In January and March 2004, our board of directors and stockholders, respectively, approved our 2004 Equity Incentive Plan, which provides for automatic grants of stock options to directors who are not our officers or employees. The 2004 Equity Incentive Plan provides that such directors will automatically receive:

- one-time option grants of 10,000 shares vesting annually over three years from the date of joining the board which are to be granted on such date at the fair market value of one share of our common stock on the date of grant; and

- annual option grants of 7,500 shares vested in full on the date of grant which are to be granted on the date of each annual stockholder meeting following the closing of this offering at the fair market value of one share of our common stock on the date of grant, provided that such grant will only be made to non- employee directors that have been members of the board for at least six months at the time of such annual stockholder meeting.

Executive Compensation

The following table sets forth the compensation earned for services rendered to us in all capacities by our Chief Executive Officer and our other executive officers whose total cash compensation exceeded $100,000 — collectively, the "Named Executive Officers" — for the year ended December 31, 2003.

Summary 2003 Compensation Table

Name and Principal Positions	Annual Compensation ($)				Long-Term Compensation	
	Year	Salary	Bonus	Other	Securities Underlying Options (#)	All Other Compensation(7)
James H. Sabry, M.D., Ph.D.,	2003	$354,167	$ 86,760	$10,610(2)	75,000(8)	$ 1,031
President and Chief	2002	317,917	71,190	10,610(2)	300,000(9)	660
Executive Officer	2001	277,083	52,500	1,152(2)	—	618
Robert I. Blum,	2003	268,404	210,290	6,248(3)	179,425(10)	604
Executive Vice President,	2002	268,484	42,525	8,987(3)	150,000(11)	468
Corporate Development and Finance and Chief Financial Officer	2001	234,375	31,500	9,256(3)	—	456
David J. Morgans, Jr., Ph.D.,	2003	243,078	54,660	11,123(4)	54,500(12)	1,239
Senior Vice President,	2002	226,208	34,965	8,935(5)	50,000(13)	1,146
Drug Discovery and Development	2001	192,708	—	8,935(5)	15,000(14)	609
Jay K. Trautman, Ph.D.,	2003	223,333	39,800	—	27,500(15)	736
Vice President, Technology(1)	2002	126,992	60,000	11,506(6)	62,500(16)	228

(1) Dr. Trautman's employment with us began on June 3, 2002.

(2) Represents loan to be forgiven over eight years beginning November 12, 2001.

(3) Represents interest payments on a loan co-signed by us on behalf of Mr. Blum.

(4) Represents loans to be forgiven over eight years beginning on October 18, 2000 and May 20, 2002.

(5) Represents loan to be forgiven over eight years beginning October 18, 2000.

(6) Represents non-deductible moving expenses.

(7) Represents group term life Insurance

(8) Represents a stock option granted to Dr. Sabry in May, 2003. Such option vests monthly over a four-year period beginning March 1, 2003.

(9) Represents a stock option granted to Dr. Sabry in July, 2002. Such option vests monthly over a five-year period beginning March 15, 2002.

(10) Represents a stock option granted to Mr. Blum in May, 2003, which vests monthly over a four-year period beginning March 1, 2003, and a stock option granted in December, 2003, which vests monthly over a five-year period beginning December 18, 2003.

(11) Represents a stock option granted to Mr. Blum in July, 2002. Such option vests monthly over a five-year period beginning March 15, 2002.

(12) Represents a stock option granted to Dr. Morgans in May, 2003. Such option vests monthly over a four-year period beginning March 1, 2003.

(13) Represents a stock option granted to Dr. Morgans in July, 2002. Such option vests monthly over a five-year period beginning March 15, 2002.

(14) Represents a stock option granted to Dr. Morgans in March, 2001. Such option vested as to 25% of the shares subject to the option on March 14, 2002, and as to 1/48th of the shares subject to such option each month thereafter.

(15) Represents a stock option granted to Dr. Trautman in May, 2003. Such option vests monthly over a four-year period from March 1, 2003.

(16) Represents a stock option granted to Dr. Trautman in July, 2002. Such option vested as to 25% of the shares subject to the option on June 3, 2003, and as to 1/48th of the shares subject to such option each month thereafter.

Option Grants in 2003

The following table sets forth information concerning grants of stock options to each of the executive officers named in the table above during 2003. All options granted to these executive officers in 2003 were granted under the 1997 Stock Option/ Stock Issuance Plan, as amended. Except as otherwise noted, one forty-eighth of the shares subject to each option vests and becomes exercisable on the first month after the vesting commencement date, and an additional one-forty-eighth of the shares subject to each option vests each month thereafter. The percent of the total options set forth below is based on an aggregate of 553,514 options granted to employees during 2003. All options were granted at fair market value as determined by our board of directors on the date of grant.

Potential realizable value represents hypothetical gains that could be achieved for the options if exercised at the end of the option term assuming that the initial public offering price of our common stock appreciates at 5% and 10% over the option term. The assumed 5% and 10% rates of stock price appreciation are provided in accordance with rules of the Securities and Exchange Commission and do not represent our estimate or projection of our future common stock price.

	Individual Grants					
Name	Number of Securities Underlying Options Granted	Percent of Total Options Granted to Employees During Period (%)	Exercise Price Per Share ($)	Expiration Date	Potential Realizable Value at Assumed Annual Rates of Stock Appreciation for Option Term ($) 5%	10%
James H. Sabry, M.D., Ph.D.	75,000	13.5%	$ 1.20	5/21/13	1,514,602	2,397,048
Robert I. Blum	37,500	6.8	1.20	5/21/13	757,301	1,198,524
	141,925	25.6	2.00	12/18/13	2,725,482	4,224,257
David J. Morgans, Jr., Ph.D.	54,500	9.9	1.20	5/21/13	1,100,611	1,741,855
Jay K. Trautman, Ph.D.	27,500	5.0	1.20	5/21/13	555,354	878,918

Aggregate Option Exercises in 2003 and Values at December 31, 2003

The following table sets forth information concerning exercisable and unexercisable stock options held by the executive officers named in the summary compensation table at December 31, 2003. The value of unexercised in-the-money options is based on the initial offering price of $13.00 per share minus the applicable exercise prices. All options were granted under our 1997 Stock Option/ Stock Issuance Plan, as amended. Except as otherwise noted, these options vest over four years and otherwise generally conform to the terms of our 1997 Stock Option/ Stock Issuance Plan, as amended.

			Number of Securities Underlying Unexercised Options at December 31, 2003 (#)		Value of Unexercised In-the-Money Options at December 31, 2003 ($)(2)	
Name	Shares Acquired On Exercise	Value Realized ($) (1)	Exercisable	Unexercisable	Exercisable	Unexercisable
James H. Sabry, M.D., Ph.D.	—	—	687,500(3)	—	8,306,250	—
Robert I. Blum	—	—	441,925(4)	—	5,170,925	—
David J. Morgans, Jr., Ph.D.	17,500	217,350	182,000(5)	—	2,189,350	—
Jay K. Trautman, Ph.D.	30,000	354,000	60,000(6)	—	708,000	—

(1) Based upon the initial public offering price of $13.00 per share less the exercise price per share.

(2) Value is determined by subtracting the exercise price of an option from the $13.00 per share initial public offering price of our common stock.

(3) If Dr. Sabry's employment with us terminated, 351,771 of the shares issuable upon the exercise of Dr. Sabry's options would currently be subject to repurchase by us at the original purchase price.

(4) If Mr. Blum's employment with us terminated, 303,436 of the shares issuable upon the exercise of Mr. Blum's options would currently be subject to repurchase by us at the original purchase price.

(5) If Dr. Morgan's employment with us terminated, 98,136 of the shares issuable upon the exercise of Dr. Morgan's options would currently be subject to repurchase by us at the original purchase price.

(6) If Dr. Trautman's employment with us terminated, 61,406 of the shares issuable upon the exercise of Dr. Trautman's options would currently be subject to repurchase by us at the original purchase price.

Stock Plans

1997 Stock Option/ Stock Issuance Plan

Our board of directors adopted and our stockholders approved the 1997 Stock Option/ Stock Issuance Plan in December 1997 and January 1998, respectively. Our board of directors will not grant any additional options under the plan following the effective date of this offering. However, the plan will continue to govern the terms and conditions of the outstanding options previously granted under the plan.

A total of 4,416,172 shares of our common stock are authorized for issuance under the 1997 Stock Option/ Stock Issuance Plan. As of December 31, 2003, options to acquire a total of 2,244,378 shares of our common stock were issued and outstanding, and a total of 1,781,117 shares of our common stock had been issued upon the exercise of options granted under the plan.

The plan provides for the grant of nonstatutory stock options to our employees and consultants, and for the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code to our employees. Our board of directors administers the 1997 Stock Option/ Stock Issuance Plan. The administrator has the authority to determine the terms and conditions of the options granted under the plan.

Generally, in the event of a "change of control," the successor corporation will assume each outstanding option or replace such options with a cash incentive program that preserves the spread between the strike price and fair market value associated with such option. If the outstanding options are not assumed, or if the successor corporation does not replace such options with a cash incentive program, the outstanding options will become fully exercisable immediately prior to such change of control and will terminate upon the consummation of the change of control. Generally, if options are assumed in connection with the change of control and an optionee's employment is terminated as the result of an "involuntary termination" within 24 months of the change of control, the options held by such optionee will immediately vest in full.

2004 Equity Incentive Plan

Our board of directors adopted our 2004 Equity Incentive Plan in January 2004 and our stockholders approved it in March 2004. Our 2004 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and our parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, stock purchase rights, restricted stock, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

We have reserved a total of 1,600,000 shares of our common stock for issuance pursuant to the 2004 Equity Incentive Plan. The 2004 Equity Incentive Plan became effective upon adoption by our board of directors. In addition, the shares reserved for issuance under our 2004 Equity Incentive Plan include shares returned to the 1997 Stock Option/ Stock Issuance Plan as the result of termination of options or the repurchase of shares issued under such plan and annual increases in the number of shares available for issuance on the first day of each fiscal year beginning with our

fiscal year beginning in 2005 and ending after our fiscal year beginning in 2009, equal to the lesser of:

- 3.5% of the outstanding shares of common stock on the first day of our fiscal year,
- 1,500,000 shares, or
- an amount our board may determine.

Our board of directors or a committee of our board administers our 2004 Equity Incentive Plan. In the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code, the committee will consist of two or more "outside directors" within the meaning of Section 162(m) of the Code. The administrator has the power to determine the terms of the awards, including the exercise price, the number of shares subject to each such award, the exercisability of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to institute an exchange program by which outstanding awards may be surrendered in exchange for awards with a lower exercise price.

The administrator determines the exercise price of options granted under our 2004 Equity Incentive Plan, but with respect to nonstatutory stock options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code and all incentive stock options, the exercise price must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed ten years, except that with respect to any participant who owns 10% of the voting power of all classes of our outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator determines the term of all other options.

No optionee may be granted an option to purchase more than 750,000 shares in any fiscal year. However, in connection with his or her initial service, an optionee may be granted an additional option to purchase up to 750,000 shares.

After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in the option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months. However, an option generally may not be exercised later than the expiration of its term.

Stock purchase rights, which represent the right to purchase our common stock, may be issued under our 2004 Equity Incentive Plan. The administrator determines the purchase price of stock purchase rights. Unless the administrator determines otherwise, we will retain a repurchase option on issued shares that we may exercise upon the termination of the purchaser's service with us for any reason. The administrator determines the rate at which our repurchase option will lapse.

Stock appreciation rights may be granted under our 2004 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. The administrator determines the terms of stock appreciation rights, including when such rights become exercisable and whether to pay the increased appreciation in cash or with shares of our common stock, or a combination thereof.

Restricted stock may be granted under our 2004 Equity Incentive Plan. Restricted stock awards are shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee. The administrator may impose whatever conditions to vesting it determines to be appropriate. For example, the administrator may set restrictions based on the achievement of specific performance goals. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Performance units and performance shares may be granted under our 2004 Equity Incentive Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals in its discretion, which, depending on the extent to which they are met, will determine the number or the value of performance units and performance shares to be paid out to participants. Performance units shall have an initial dollar value established by the administrator prior to the grant date. Performance shares shall have an initial value equal to the fair market value of our common stock on the grant date.

Our 2004 Equity Incentive Plan also provides for the automatic grant of options to our non-employee directors. Each non-employee director appointed or elected to the board after the completion of this offering will receive an initial option to purchase 10,000 shares upon such appointment or election, except for those directors who become non-employee directors by ceasing to be employee directors. In addition, beginning in 2005, non-employee directors who have been directors for at least six months will receive a subsequent option to purchase 7,500 shares following each annual meeting of our stockholders. All options granted under the automatic grant provisions have a term of ten years and an exercise price equal to fair market value on the date of grant. Each initial option becomes exercisable as to one-third of the shares subject to such option on each anniversary of the date of grant, provided the non-employee director remains a service provider on such dates. Each subsequent option shall be exercisable in full on the date of grant.

Our 2004 Equity Incentive Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Our 2004 Equity Incentive Plan provides that in the event of a “change of control,” the successor corporation will assume or substitute an equivalent award for each outstanding option, stock appreciation right and stock purchase right. If there is no assumption or substitution of outstanding options, stock appreciation rights and stock purchase rights, the administrator will provide notice to the recipient that he or she has the right to exercise the option, stock appreciation right or stock purchase right as to all of the shares subject to the award, including shares which would not otherwise be exercisable, for a period of time as the administrator may determine from the date of the notice. The award will terminate upon the expiration of such period. In the event an outside director is terminated on or following a change in control, other than pursuant to a voluntary resignation, his or her options will fully vest and become immediately exercisable.

Our 2004 Equity Incentive Plan will automatically terminate in 2014, unless we terminate it sooner. In addition, our board of directors has the authority to amend, suspend or terminate the 2004 Equity Incentive Plan provided such action does not impair the rights of any participant.

2004 Employee Stock Purchase Plan

Concurrently with this offering, we intend to establish our 2004 Employee Stock Purchase Plan, and a total of 500,000 shares of our common stock will be made available for sale.

Our board of directors or a committee of our board administers our 2004 Employee Stock Purchase Plan. Our board of directors or its committee has full and exclusive authority to interpret the terms of our 2004 Employee Stock Purchase Plan and determine eligibility.

All of our employees are eligible to participate if they are customarily employed by us or any participating subsidiary for at least 20 hours per week and more than five months in any calendar year. However, an employee may not be granted an option to purchase stock if such employee:

- immediately after the grant owns stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock, or

- has rights to purchase stock under our employee stock purchase plans that accrues at a rate that exceeds $25,000 worth of stock for each calendar year.

Our 2004 Employee Stock Purchase Plan is intended to qualify under Section 423 of the Internal Revenue Code and provides for consecutive, overlapping 24-month offering periods. Each offering period includes four six-month purchase periods. The offering periods generally start on the first trading day on or after May 1 and November 1 of each year, except for the first such offering period which will commence on the first trading day on or after the effective date of this offering and will end on the first trading day on or after the earlier of (a) May 1, 2006 or (b) 27 months from the beginning of the first offering period.

Our 2004 Employee Stock Purchase Plan permits participants to purchase common stock through payroll deductions of up to 15% of their eligible compensation which includes a participant's base salary, wages, overtime pay, shift premium and recurring commissions, but does not include payments for incentive compensation or bonuses. A participant may purchase a maximum of 1,250 shares during a six-month purchase period.

Amounts deducted and accumulated by the participant are used to purchase shares of our common stock at the end of each six-month purchase period. The price is 85% of the lower of the fair market value of our common stock at the beginning of an offering period or after a purchase period end. If the fair market value at the end of a purchase period is less than the fair market value at the beginning of the offering period, participants will be withdrawn from the current offering period following their purchase of shares on the purchase date and will be automatically re-enrolled in a new offering period. Participants may end their participation at any time during an offering period, and will be paid their payroll deductions to date. Participation ends automatically upon termination of employment with us.

A participant may not transfer rights granted under the 2004 Employee Stock Purchase Plan other than by will, the laws of descent and distribution or as otherwise provided under the 2004 Employee Stock Purchase Plan.

In the event of a "change of control," a successor corporation may assume or substitute each outstanding option. If the successor corporation refuses to assume or substitute for the outstanding options, the offering period then in progress will be shortened, and a new exercise date will be set.

Our board of directors has the authority to amend or terminate our 2004 Employee Stock Purchase Plan, except that, subject to certain exceptions described in the 2004 Employee Stock Purchase Plan, no such action may adversely affect any outstanding rights to purchase stock under our 2004 Employee Stock Purchase Plan.

401(k) Plan

In July 1998, we adopted a Retirement Savings and Investment Plan, the 401(k) Plan, covering our full-time employees located in the United States. The 401(k) Plan is intended to qualify under Section 401(k) of the Internal Revenues Code, so that contributions to the 401(k) Plan by employees or by us, and the investment earnings thereon, are not taxable to the employees until withdrawn. If our 401(k) Plan qualifies under Section 401(k) of the Internal Revenues Code, our contributions will be deductible by us when made. Our employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit of $13,000 if under 50 years old and $16,000 if 50 years or older in 2004 and to have those funds contributed to the 401(k) Plan. The 401(k) Plan permits us, but does not require us, to make additional matching contributions on behalf of all participants. To date, we have not made any contributions to the 401(k) Plan.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Stock Issuances to our Directors, Officers and Principal Stockholders

In April 1998, we sold 5,300,000 shares of our Series A preferred stock at $1.00 per share. In August 1999, we sold 6,896,545 shares of our Series B preferred stock at $2.90 per share. In November 2000, we sold 11,578,980 shares of our Series C preferred stock at $4.75 per share. In July 2001, we sold 2,333,334 shares of our Series D preferred stock at $6.00 per share. In March and April 2003, we sold 8,015,449 shares of our Series E preferred stock at $5.00 per share. Our Series A, Series B, Series C and Series E preferred stock is convertible into shares of our common stock on a 1-for-0.5 basis. Our Series D preferred stock is convertible into shares of our common stock on a 1-for-0.5160639 basis.

Upon the closing of this offering, all shares of our outstanding preferred stock will be automatically converted into shares of common stock. We have entered into an agreement pursuant to which our preferred stockholders will have registration rights with respect to their shares of common stock following this offering. For a description of these registration rights, see “Description of Capital Stock.”

Since our inception, we have from time to time sold shares of our common stock pursuant to option exercises and restricted stock purchases, at per share prices ranging from $0.0075 per share to $1.00, to our directors, officers, founders and consultants, subject to repurchase rights in our favor that lapse over specified periods, typically four years. The repurchase right entitles us to repurchase the unvested shares at the original purchase price paid by the purchaser upon the termination of a purchaser’s services with us.

Listed below are those persons who participated in the transactions described above who are our executive officers or directors or who beneficially own five percent or more of our securities.

	Common Stock		Convertible Preferred Stock					
Name of Purchaser	Shares (#)	Aggregate Consideration ($)	Series A (#)	Series B (#)	Series C (#)	Series D (#)	Series E (#)	Aggregate Consideration ($)
5% Stockholders								
Entities affiliated with Sevin Rosen Funds(1)	—	—	2,250,000	1,032,757	1,052,631	—	2,000,000	20,244,993
Entities affiliated with Credit Suisse First Boston(2)(11)	—	—	—	—	4,210,527	—	2,000,000	30,000,003
Vulcan Ventures, Inc.	—	—	—	1,724,137	2,105,264	—	800,000	19,000,001
Entities affiliated with Mayfield(3)	—	—	2,250,000	1,034,482	578,947	—	400,000	9,999,996
Glaxo Group Limited	—	—	—	—	—	2,333,334	600,000	17,000,004
Biomedicine, L.P.	—	—	—	1,724,137	210,526	—	200,000	6,999,996
Entities affiliated with Alta Biopharma Group(4)	—	—	—	—	1,263,158	—	800,000	10,000,001
Executive Officers and Directors								
James H. Sabry, M.D., Ph.D. (5)	250,000	3,750	—	—	—	—	—	—
Robert I. Blum	112,500	22,500	—	—	—	—	—	—
Jay K. Trautman, Ph.D.	30,000		—	—	—	—	—	—
David J. Morgans, Jr., Ph.D.	17,500	10,150	—	—	—	—	—	—
James A. Spudich, Ph.D.(6)	275,000	8,750	—	—	—	—	—	—
Stephen Dow(7)	—	—	2,250,000	1,032,757	1,052,631	—	2,000,000	20,244,993
Grant Heidrich, III(8)	—	—	2,250,000	1,034,482	631,579	—	405,449	10,277,243
Michael Schmertzler(9)(11)	—	—	—	—	4,210,527	—	2,000,000	30,000,003
William J. Rutter, Ph.D.(10)	3,500	700	—	344,827	—	—	—	999,998

(1) Represents: (a) 6,000 shares of Series A preferred stock and 1,380 shares of Series B preferred stock held by Sevin Rosen Bayless Management Company (which will convert into an aggregate of 3,690 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 2,080,188 shares of Series A preferred stock, 956,086 shares of Series B preferred stock and 195,158 shares of Series C preferred stock held by Sevin Rosen Fund VI L.P. (which will convert into an aggregate of 1,615,716 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 163,812 shares of Series A preferred stock, 75,291 shares of Series B preferred stock and 15,368 shares of Series C preferred stock held by Sevin Rosen VI Affiliates Fund L.P. (which will convert into an aggregate of 127,235 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (d) 825,263 shares of Series C preferred stock and 686,000 shares of Series E preferred stock held by Sevin

Rosen Fund VIII L.P. (which will convert into an aggregate of 755,631 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (e) 16,842 shares of Series C preferred stock and 14,000 shares of Series E preferred stock held by Sevin Rosen VIII Affiliates Fund L.P. (which will convert into an aggregate of 15,421 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (f) 1,251,900 shares of Series E preferred stock held by Sevin Rosen Fund VII L.P.; (which will convert into an aggregate of 625,950 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (g) 48,100 shares of Series E preferred stock held by Sevin Rosen VII Affiliates Fund L.P. (which will convert into an aggregate of 24,050 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split).

(2) Represents: (a) 2,893,799 shares of Series C preferred stock and 1,561,993 shares of Series E preferred stock held by Credit Suisse First Boston Equity Partners, L.P. (which will convert into 2,227,896 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 808,891 shares of Series C preferred stock and 436,617 shares of Series E preferred stock held by Credit Suisse First Boston Equity Partners (Bermuda), L.P. (which will convert into 622,754 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 288,000 shares of Series C preferred stock held by EMA Private Equity Fund 2000, L.P. (which will convert into 144,000 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (d) 217,263 shares of Series C preferred stock held EMA Partners Fund 2000, L.P. (which will convert into 108,631 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (e) 2,574 shares of Series C preferred stock and 1,390 shares of Series E preferred stock held by Credit Suisse First Boston U.S. Executive Advisors, L.P. An affiliate of Credit Suisse Group, of which Credit Suisse First Boston LLC is an indirect wholly-owned subsidiary, is either the general partner, managing general partner or investment manager of each of these entities (which will convert into 1,982 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). Credit Suisse Group and Credit Suisse First Boston LLC each disclaims beneficial ownership of the shares owned by such investment partnerships to the extent attributable to partnership interests therein held by persons other than Credit Suisse Group and its affiliates.

(3) Represents: (a) 2,137,500 shares of Series A preferred stock, 982,758 shares of Series B preferred stock, 278,499 shares of Series C preferred stock and 353,961 shares of Series E preferred stock held by Mayfield IX (which will convert into 1,876,359 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 112,500 shares of Series A preferred stock, 51,724 shares of Series B preferred stock, 14,658 shares of Series C preferred stock and 18,629 shares of Series E preferred stock held by Mayfield Associates Fund IV (which will convert into 98,755 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 285,790 shares of Series C preferred stock held by Cell Trust (which will convert into 142,895 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (d) 27,410 shares of Series E preferred stock by Cell Trust II (which will convert into 13,705 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split).

(4) Represents: (a) 1,194,169 shares of Series C preferred stock and 771,614 shares of Series E preferred stock held by Alta BioPharma Partners II, L.P. (which will convert into 982,891 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (b) 68,989 shares of Series C preferred stock and 28,386 shares of Series E preferred stock held by Alta Embarcadero BioPharma II, LLC (which will convert into 48,687 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split).

(5) Dr. Sabry purchased his shares of common stock in January 1998, at $0.015 per share. Our right to repurchase those shares lapsed as to all of the shares as of January 2002.

(6) Dr. Spudich purchased 250,000 of his shares of common stock in January 1998, at $0.015 per share, and 25,000 of his shares in June 1999, at $0.20 per share. Our right to repurchase those shares lapsed as to all of the shares as of January 2002 and September of 2002, respectively. Dr. Spudich subsequently transferred an aggregate of 35,000 shares of common stock.

(7) Represents: (a) 6,000 shares of Series A preferred stock and 1,380 shares of Series B preferred stock held by Sevin Rosen Bayless Management Company (which will convert into 3,690 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 2,080,188 shares of Series A preferred stock, 956,086 shares of Series B preferred stock and 195,158 shares of Series C preferred stock held by Sevin Rosen Fund VI L.P. (which will convert into 1,615,716 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 163,812 shares of Series A preferred stock, 75,291 shares of Series B preferred stock and 15,368 shares of Series C preferred stock held by Sevin Rosen VI Affiliates Fund L.P. (which will convert into 127,235 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (d) 825,263 shares of Series C preferred stock and 686,000 shares of Series E preferred stock held by Sevin Rosen Fund VIII L.P. (which will convert into 755,631 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (e) 16,842 shares of Series C preferred stock and 14,000 shares of Series E preferred stock held by Sevin Rosen VIII Affiliates Fund L.P. (which will convert into 15,421 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (f) 1,251,900 shares of Series E preferred stock held by Sevin Rosen Fund VII L.P. (which will convert into 625,950 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (g) 48,100 shares of Series E preferred stock held by Sevin Rosen VII Affiliates Fund L.P. (which will convert into 24,050 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). Stephen Dow is a general partner of the general partner of each of these entities except for Sevin Rosen Bayless Management Company, of which he is a Vice President. Mr. Dow disclaims beneficial ownership of these shares except to the extent of his proportionate partnership interest in these shares.

(8) Represents: (a) 2,137,500 shares of Series A preferred stock and 982,758 shares of Series B preferred stock held by Mayfield IX (which will convert into 1,560,129 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 285,790 shares of Series C preferred stock held by Cell Trust (which will convert into 142,895 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 14,658 shares of Series C preferred stock and 18,629 shares of Series E preferred stock held by Mayfield Associates Fund IV, L.P. (which will convert into 16,643 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (f) 27,410 shares of Series E preferred stock held by Cell Trust II (which will convert into 13,705 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (g) 112,500 shares of Series A preferred stock and 51,724 shares of Series B preferred stock held by Mayfield Associates Fund IV, A California Limited Partnership (which will convert into 82,112 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (h) 278,499 shares of Series C preferred stock and 353,961 shares of Series E preferred stock held by Mayfield IX, L.P. (which will convert into 316,230 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (i) 52,632 shares of Series C preferred stock and 5,449 shares of Series E preferred stock held by The A. Grant III & Jeanette Yvonne Heidrich Community Property Trust (which will convert into 29,040 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). A. Grant Heidrich is a general partner of this entity or is a member of a limited liability company that serves as a general partner. Mr. Heidrich disclaims beneficial ownership of these shares except to the extent of his proportionate partnership or membership interest in these shares.

(9) Represents: (a) 2,893,799 shares of Series C preferred stock and 1,561,993 shares of Series E preferred stock held by Credit Suisse First Boston Equity Partners, L.P. (which will convert into 2,227,896 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (b) 808,891 shares of Series C preferred stock and 436,617 shares of Series E preferred stock held by Credit Suisse First Boston Equity Partners (Bermuda), L.P. (which will convert into 622,754 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (c) 288,000 shares of Series C preferred stock held by EMA Private Equity Fund 2000, L.P. (which will convert into 144,000 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); (d) 217,263 shares of Series C preferred stock held EMA Partners Fund 2000, L.P. (which will convert into 108,631 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split); and (e) 2,574 shares of Series C preferred stock and 1,390 shares of Series E preferred stock held by Credit Suisse First Boston U.S. Executive Advisors, L.P. (which will convert into 1,982 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). Michael Schmertzler is a Managing Director of Aries Advisors, LLC, the sub-advisor to Credit Suisse First Boston Equity Partners, L.P. Mr. Schmertzler disclaims beneficial ownership of these shares except to the extent of his proportionate partnership or membership interest in these shares.

(10) Represents: 344,827 shares of Series B preferred stock (which will convert into 172,413 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split) and 3,500 shares of common stock. Dr. Rutter purchased 3,500 shares of common stock in December 2003 at $0.20 per share. Dr. Rutter subsequently transferred an aggregate of 3,500 shares of common stock. Our right to repurchase those shares lapsed as to all of the shares as of May 2003.

(11) At the completion of the offering, all of these shares, except for shares constituting 4.99% of the outstanding common stock of the Company upon the closing of this offering (after giving effect to the issuance of the shares in this offering and the private placement, including shares issued (if any) at the closing pursuant to exercise of the over-allotment option) of these shares will be deposited in a voting trust having Wells Fargo Bank, N.A. as the trustee. Under the terms of the voting trust agreement, the trustee has the power to vote these shares as it believes in its sole judgment is in the best interests of the stockholders of Cytokinetics. In addition, the trustee is required to vote the shares to prevent the election of more than one CSFB affiliate as a director of Cytokinetics. Each entity which deposits shares will retain the power to remove its shares from the voting trust or sell its shares to third parties so long as the transferee is not affiliated with CSFB or is otherwise considered an eligible transferee under the terms of the voting trust agreement. The voting trust agreement will expire in April 2014 or such earlier time as CSFB ceases to be an affiliate of Cytokinetics.

Strategic Alliance Agreement with GlaxoSmithKline

In June 2001, we entered into a strategic alliance agreement with Glaxo Group Limited, a wholly-owned subsidiary of GSK. In the agreement, GSK agreed to pay Cytokinetics an upfront cash payment of $14.0 million. GSK has also committed to reimburse our FTEs conducting research in connection with the strategic alliance and to make additional precommercialization milestone payments and pay royalties based on product sales. As part of such transaction, Glaxo Wellcome International B.V., another wholly-owned subsidiary of GSK, purchased 2,333,334 shares of our Series D preferred stock at price per share of $6.00 and an aggregate price of $14,000,004 (which will convert into 1,204,149 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). Pursuant to the terms of the stock purchase agreement, GSK has certain restrictions on its ability to buy and sell our securities for up to three years following this offering. As of December 31, 2003, we have recognized a total of $7.0 million, $3.2 million and $19.7 million in licensing fees, milestone payments, and FTE and project reimbursements respectively, from GSK under this strategic alliance. In the future, we may also receive significant precommercialization milestone payments, as well as royalties on product sales.

Investment of GlaxoSmithKline in Series E Preferred Stock Financing

In connection with our March and April 2003 Series E preferred stock financing, Glaxo Group Limited purchased 600,000 shares of Series E preferred stock at $5.00 per share for an aggregate purchase price of $3,000,000 (which will convert into 300,000 shares of common stock upon the consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split).

Investment of GlaxoSmithKline in Concurrent Private Placement

In March 2004, Glaxo Group Limited entered into a stock purchase agreement whereby it will purchase 538,461 shares of common stock based on the initial public offering price of $13.00 per share for aggregate cash proceeds of approximately $7.0 million in a private placement to close immediately prior to this offering.

Investment of Credit Suisse Group Series C and Series E Preferred Stock Financing

In connection with our November 2000 Series C and March and April 2003 Series E preferred stock financings, affiliates of Credit Suisse Group purchased an aggregate of 4,210,527 shares of Series C preferred stock at $4.75 per share and 2,000,000 shares of Series E preferred stock at $5.00 per share for an aggregate purchase price of $20,000,003 and $10,000,000, respectively (which are convertible into 3,105,263 shares of common stock upon consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). An affiliate of Credit Suisse Group, of which Credit Suisse First Boston LLC is an indirect wholly owned subsidiary, one of the underwriters in the offering made by this prospectus, is either the general manager, managing general partner or investment manager of each of these entities. At the completion of the offering and the private placement, all of these shares, except for shares constituting 4.99% of the outstanding common stock of the Company upon the closing of this offering (after giving effect to the issuance of the shares in this offering, including shares issued (if any) at the closing pursuant to exercise of the

over-allotment option) of these shares will be deposited in a voting trust having Wells Fargo Bank, N.A. as the trustee. Under the terms of the voting trust agreement, the trustee has the power to vote these shares as it believes in its sole judgment is in the best interests of the stockholders of Cytokinetics. In addition, the trustee is required to vote the shares to prevent the election of more than one CSFB affiliate as a director of Cytokinetics. Each entity which deposits shares will retain the power to remove its shares from the voting trust or sell its shares to third parties so long as the transferee is not affiliated with CSFB or is otherwise considered an eligible transferee under the terms of the voting trust agreement. The voting trust agreement will expire in April 2014 or such earlier time as CSFB ceases to be an affiliate of Cytokinetics.

Licensing Arrangement

Dr. James Spudich, one of our directors, is a Professor of Biochemistry and Developmental Biology at Stanford University. As such, he may receive compensation from the university in respect of inventions and intellectual property he has assigned to it, including certain patent rights which we licensed from the university in April 1998. We have paid technology licensing fees under this agreement, for which Dr. Spudich received no compensation. In the future, we may make additional payments upon achievement of milestones or sales of products we develop using the licensed patents.

Cash Bonus Agreements with Management

We have entered into Cash Bonus Agreements with certain of our executive officers. Robert I. Blum has an agreement dated September 1, 2002, amended and restated on December 1, 2003 whereby we agree to pay Mr. Blum cash bonuses in the amount of $9,000, $9,000, $40,100, $38,300, $36,500 and $3,600 on December 15, 2003 and June 30, 2004, 2005, 2006, 2007 and 2008, respectively, provided that Mr. Blum remains an employee in good standing.

We have entered into a Cash Bonus Agreement with David J. Morgans dated September 1, 2002, amended and restated on December 1, 2003, whereby we agree to pay Dr. Morgans cash bonuses in the amount of $7,400, $7,400, $33,100, $31,600, $30,200 and $3,000 on December 15, 2003 and June 30, 2004, 2005, 2006, 2007 and 2008, respectively, provided that Dr. Morgans remains an employee in good standing.

We have entered into a Cash Bonus Agreement with Jay K. Trautman dated September 1, 2002, amended and restated on December 1, 2003, whereby we agree to pay Dr. Trautman cash bonuses in the amount of $19,300, $19,300, $86,200, $82,300, $78,500 and $7,700 on December 15, 2003 and June 30, 2004, 2005, 2006, 2007 and 2008, respectively, provided that Dr. Trautman remains an employee in good standing.

Loans to Management

In connection with the employment of Robert I. Blum, we provided a letter of credit dated October 6, 1998, in the amount of $150,000 and with an interest rate of 6.65% per annum, secured by a certificate of deposit, as security for a personal loan obligation of Mr. Blum. We agreed to make all interest payments on the loan. As of December 31, 2003, the amount of the loan is $150,000, and we made interest payments totaling $8,000, $9,000 and $9,000 in 2001, 2002 and 2003, respectively.

On July 12, 2002, we provided Mr. Blum with a loan, secured by shares of our common stock held by Mr. Blum, per a promissory note dated July 12, 2002, in the amount of $100,000 and an interest rate of 5.75% per annum. Accrued interest is due and payable on July 12, 2003 and 2004. Accrued interest and twenty percent of the original principal balance is due on July 12, 2005, 2006, and 2007. Accrued interest and forty percent of the original principal balance is due on July 12, 2008.

In connection with the employment of David J. Morgans, Ph.D., we provided Dr. Morgans and Sandra Morgans with unsecured loans per promissory notes, dated May 20, 2002 and October 18, 2000, in the amounts of $37,400 and $150,000 and interest rates of 4.88% per annum, and 5.8% per annum, respectively. The total loan amounts, in conjunction with accrued interest, are forgivable over the course of Dr. Morgans' employment with us.

On July 12, 2002, we provided Dr. Morgans with a loan, secured by shares of our common stock held by Dr. Morgans, per a promissory note, dated July 12, 2002, in the amount of $82,600 and an interest rate of 5.75% per annum. Accrued interest is due and payable on July 12, 2003 and 2004. Accrued interest and twenty percent of the original principal balance is due on July 12, 2005, 2006, and 2007. Accrued interest and forty percent of the original principal balance is due on July 12, 2008.

In connection with the employment of Jay K. Trautman, Ph.D., we provided Dr. Trautman with a loan secured by shares of our common stock held by Dr. Trautman, per a promissory note, dated July 12, 2002, in the amount of $215,000 and an interest rate of 5.75% per annum. Accrued interest is due and payable on July 12, 2003 and 2004. Accrued interest and twenty percent of the original principal balance is due on July 12, 2005, 2006, and 2007. Accrued interest and forty percent of the original principal balance is due on July 12, 2008.

In connection with the employment of James H. Sabry, M.D., Ph.D., we provided Dr. Sabry and Sandra J. Spence with an unsecured loan per a promissory note, dated November 12, 2001, in the amount of $200,000 and an interest rate of 5.18% per annum. The total loan amount, in conjunction with accrued interest, is forgivable over the course of Dr. Sabry's employment with us.

Other Transactions

We have a verbal understanding with Dr. William J. Rutter, whereby Dr. Rutter agreed to spend an average of one day per week at Cytokinetics providing general business consulting and become a member of the board effective May 1999. In exchange for these services, we granted Dr. Rutter an option to purchase 62,500 shares of Common Stock at an exercise price of $0.20. The option was granted and approved at the July 27, 1999 board meeting.

On February 13, 2003, Dr. Charles Homcy became a member of the board of directors. In exchange for these services, we granted Dr. Homcy an option to purchase 30,000 shares of our common stock at an exercise price of $1.20. The option was granted and approved at the March 19, 2003 board meeting.

On March 3, 2003, we entered into a consulting agreement with Dr. Charles Homcy, whereby Dr. Homcy agreed to provide Cytokinetics consulting in the specialized field of drug discovery and development. In exchange for these services, we granted Dr. Homcy an option to purchase 12,500 shares of Common Stock at an exercise price of $1.20 per share. The option was granted and approved at the May 21, 2003 board meeting.

On July 10, 2002, we granted to Dr. James A. Spudich an option to purchase 10,000 shares of our common stock at an exercise price of $1.20 per share in connection with his services on our scientific advisory board. Such options vest monthly over a two-year period.

On March 8, 2004, we granted to Dr. James Sabry, Dr. David Morgans and Dr. Jay Trautman options to purchase 86,500, 34,000 and 25,000 shares, respectively, of our common stock under our 2004 Equity Incentive Plan at an exercise price of $6.50 per share. These options were granted and approved at the March 8, 2004 compensation committee meeting.

PRINCIPAL STOCKHOLDERS

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of January 15, 2004 and as adjusted to reflect the sale of common stock offered hereby and in the private placement by:

- each stockholder known by us to own beneficially more than five percent of our common stock;
- each of the named executive officers listed in the Summary Compensation Table;
- each of our directors; and
- all of our directors and the named executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to stock options and warrants currently exercisable or exercisable within 60 days are deemed to be outstanding for computing the percentage ownership of the person holding these options and the percentage ownership of any group of which the holder is a member, but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. Some of the shares of common stock held by our directors, officers and consultants are subject to repurchase rights in our favor. For a discussion of these repurchase rights, see "Related Party Transactions."

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned Prior to The Offering	Percent of Shares Beneficially Owned	
		Before Offering(1)	After Offering and Private Placement
5% Stockholders			
Entities affiliated with Sevin Rosen Funds(2) Two Galleria Tower 13455 Noel Road Dallas, TX 75240	3,167,694	16.2%	11.7%
Entities affiliated with Credit Suisse First Boston(3)(18) Eleven Madison Ave New York, NY 10010	3,105,263	15.9%	11.5%
Vulcan Ventures, Inc.(16) 505 Union Station, 505 Fifth Ave. South, Suite 900 Seattle, WA 98104	2,314,700	11.9%	8.6%
Entities affiliated with Mayfield(4) 2800 Sand Hill Road Suite 250 Menlo Park, CA 94025	2,131,714	10.9%	7.9%
Glaxo Group Limited Glaxo Wellcome House Berkeley Avenue Greenford Middlesex England UB6 ONN	1,504,149	7.7%	7.6%

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned Prior to The Offering	Percent of Shares Beneficially Owned	
		Before Offering(1)	After Offering and Private Placement
Biomedicine, L.P.(17) Cayman National Bldg., 4th Floor Elgin Ave P.O. Box 1790 George Town Grand Cayman Cayman Islands	1,067,331	5.5%	4.0%
Entities affiliated with Alta Biopharma Group(5) One Embarcadero Center Suite 4050 San Francisco, CA 94111	1,031,579	5.3%	3.8%
Executive Officers and Directors			
James H. Sabry, M.D., Ph.D(6)	937,500	4.6%	3.4%
Robert I. Blum(7)	554,425	2.8%	2.0%
David J. Morgans, Jr., Ph.D(8)	199,500	1.0%	*
Jay K. Trautman, Ph.D(9)	90,000	*	*
Stephen Dow(10) Two Galleria Tower 13455 Noel Road Dallas, TX 75240	3,167,694	16.2%	11.7%
A. Grant Heidrich, III(11) Mayfield Fund 2800 Sand Hill Road Suite 250 Menlo Park, CA 94025	2,160,755	11.1%	8.0%
William J. Rutter, Ph.D.(12) One Market Suite 1475 Steuart Tower San Francisco, CA 94105	231,413	1.2%	*
Michael Schmertzler(13)(18) Eleven Madison Ave New York, NY 10010	3,105,263	15.9%	11.5%
James A. Spudich, Ph.D.(14) Stanford School of Medicine Beckman Center Room B405 Stanford, CA 94305-5307	250,000	1.3%	*
Charles Homcy, M.D.(15) Portola Pharmaceuticals 270 East Grand Avenue South San Francisco, CA 94080	42,500	*	*
All directors and named executive officers as a group (10 persons)	10,739,050	51.2%	37.8%

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares of our common stock.

(1) Percentage ownership before the offering is based on the 19,528,836 shares of common stock outstanding on January 15, 2004, after giving effect to the conversion of all of our preferred stock into shares of our common stock.

(2) Represents: (a) 3,690 shares of common stock held by Sevin Rosen Bayless Management Company; (b) 1,615,716 shares of common stock held by Sevin Rosen VI L.P.; (c) 127,235 shares of common stock held by Sevin Rosen Fund VI Affiliates Fund L.P.; (d) 755,631 shares of common stock held by Sevin Rosen Fund VIII L.P.; (e) 15,421 shares of common stock held by Sevin Rosen VIII Affiliates Fund L.P.; (f) 625,950 shares of common stock held by Sevin Rosen Fund VII L.P.; and (g) 24,050 shares of common stock held by Sevin Rosen VII Affiliates Fund L.P.

(3) Represents: (a) 2,227,896 shares of common stock held by Credit Suisse First Boston Equity Partners, L.P.; (b) 622,754 shares of common stock held by Credit Suisse First Boston Equity Partners (Bermuda), L.P.; (c) 144,000 shares of common stock held by EMA Private Equity Fund 2000, L.P.; (d) 108,631 shares of common stock held EMA Partners Fund 2000, L.P.; and (e) 1,982 shares of common stock held by Credit Suisse First Boston U.S. Executive Advisors, L.P. An affiliate of Credit Suisse Group, of which Credit Suisse First Boston LLC is an indirect wholly-owned subsidiary, is either the general partner, managing general partner or investment manager of each of those entities. Credit Suisse Group and Credit Suisse First Boston LLC each disclaims beneficial ownership of the shares owned by such investment partnerships to the extent attributable to partnership interests therein held by persons other than Credit Suisse Group and its affiliates.

(4) Represents: (a) 1,876,359 shares of common stock held by Mayfield IX; (b) 98,755 shares of common stock held by Mayfield Associates Fund IV, L.P.; (c) 142,895 shares of common stock held by Cell Trust; and (d) 13,705 shares of common stock held by Cell Trust II.

(5) Represents: (a) 982,891 shares of common stock held by Alta BioPharma Partners II, L.P.; and (b) 48,687 shares of common stock held by Alta Embarcadero BioPharma II, LLC. Farah Champsi, Managing Director, has voting and investment power with respect to these shares.

(6) Represents: (a) 250,000 shares of common stock held by Dr. Sabry; and (b) options granted to Dr. Sabry to purchase 687,500 shares of common stock that are immediately exercisable. 341,042 shares underlying the option would remain subject to our repurchase right upon termination of Dr. Sabry's employment.

(7) Represents: (a) 92,500 shares of common stock held by Mr. Blum; (b) 10,000 shares of common stock held by The Brittany Blum 2003 Irrevocable Trust; (c) 10,000 shares of common stock held by The Bridget Blum 2003 Irrevocable Trust; and (d) options granted to Mr. Blum to purchase 441,925 shares of common stock that are immediately exercisable. 298,696 shares underlying the option would remain subject to our repurchase right upon termination of Mr. Blum's employment.

(8) Represents (a) 17,500 shares of common stock held by Dr. Morgans and (b) options granted to Dr. Morgans to purchase 182,000 shares of common stock that underlying the option immediately exercisable. 95,855 shares underlying the option would remain subject to our repurchase right upon termination of Dr. Morgans' employment.

(9) Represents: (a) 60,000 shares of common stock held by Dr. Trautman, 29,531 shares of which are subject to our right of repurchase; and (b) options granted to Dr. Trautman to purchase 30,000 shares of common stock that are immediately exercisable. 30,000 shares underlying the option would remain subject to our repurchase right upon termination of Dr. Trautman's employment.

(10) Represents: (a) 3,690 shares of common stock held by Sevin Rosen Bayless Management Company; (b) 1,615,716 shares of common stock held by Sevin Rosen VI L.P.; (c) 127,235 shares of common stock held by Sevin Rosen Fund VI Affiliates Fund L.P.; (d) 755,631 shares of common stock held by Sevin Rosen Fund VIII L.P.; (e) 15,421 shares of common stock held by Sevin Rosen VIII Affiliates Fund L.P.; (f) 625,950 shares of common stock held by Sevin Rosen Fund VII L.P.; and (g) 24,050 shares of common stock held by Sevin Rosen VII Affiliates

Fund L.P. Stephen Dow is a general partner of the general partner of each of these entities except for Sevin Rosen Bayless Management Company, of which he is a Vice President. Mr. Dow disclaims beneficial ownership of these shares except to the extent of his proportionate partnership interest in these shares.

(11) Represents: (a) 1,876,359 shares of common stock held by Mayfield IX; (b) 98,755 shares of common stock held by Mayfield Associates Fund IV; (c) 142,895 shares of common stock held by Cell Trust; (d) 13,705 shares of common stock held by Cell Trust II; and (d) 58,081 shares of common stock held by The A. Grant III & Jeanette Yvonne Heidrich Community Property Trust. A. Grant Heidrich is a Managing Director of Mayfield IX Management, L.L.C., the General Partner of Mayfield IX and Mayfield Associates Fund IV. Mr. Heidrich disclaims beneficial ownership of the shares held by affiliates of Mayfield, except to the extent of his proportionate partnership interest therein.

(12) Represents: (a) 115,266 shares of common stock owned by the William J. Rutter Revocable Trust; (b) 57,147 shares of common stock held by Rutter Investments, L.P.; and (c) options granted to Dr. Rutter to purchase 59,000 shares of common stock that are immediately exercisable.

(13) Represents: (a) 2,227,896 shares of common stock held by Credit Suisse First Boston Equity Partners, L.P.; (b) 622,754 shares of common stock held by Credit Suisse First Boston Equity Partners (Bermuda), L.P.; (c) 144,000 shares of common stock held by EMA Private Equity Fund 2000, L.P.; (d) 108,631 shares of common stock held EMA Partners Fund 2000, L.P.; and (e) 1,982 shares of common stock held by Credit Suisse First Boston U.S. Executive Advisors, L.P. Michael Schmertzler is a Managing Director of Aries Advisors, LLC, the sub-advisor to Credit Suisse First Boston Equity Partners, L.P. Mr. Schmertzler disclaims beneficial ownership of these shares except to the extent of his proportionate partnership or membership interest in shares.

(14) Represents: (a) 240,000 shares of common stock held by held by Dr. Spudich; and (b) options granted to Dr. Spudich to purchase 10,000 shares of common stock that are immediately exercisable. 1,667 shares underlying the option would remain subject to our repurchase right upon termination of Dr. Spudich's employment.

(15) Represents options granted to Dr. Homcy to purchase 42,500 shares of common stock that are immediately exercisable. 28,125 shares underlying the option would remain subject to repurchase right upon termination of Dr. Homcy's employment.

(16) Michael Kranda, Director of Biotechnology Venture Investments, has voting and investment power with respect to these shares.

(17) Philip J. Sutcliffe, Director or International BM Biomedicine Holdings (Cayman) Ltd., the General Partner of Biomedicine, L.P., has voting and investment power with respect to these shares.

(18) At the completion of the offering and the private placement, all of these shares, except for shares constituting 4.99% of the outstanding common stock of the Company upon the closing of this offering (after giving effect to the issuance of the shares in this offering, including shares issued (if any) at the closing pursuant to exercise of the over-allotment option) of these shares will be deposited in a voting trust having Wells Fargo Bank, N.A. as the trustee. Under the terms of the voting trust agreement, the trustee has the power to vote these shares as it believes in its sole judgment is in the best interests of the stockholders of Cytokinetics. In addition, the trustee is required to vote the shares to prevent the election of more than one CSFB affiliate as a director of Cytokinetics. Each entity which deposits shares will retain the power to remove its shares from the voting trust or sell its shares to third parties so long as the transferee is not affiliated with CSFB or is otherwise considered an eligible transferee under the terms of the voting trust agreement. The voting trust agreement will expire in April 2014 or such earlier time as CSFB ceases to be an affiliate of Cytokinetics.

Except as otherwise noted above, the address of each person listed on the table is c/o Cytokinetics, Incorporated, 280 East Grand Avenue, South San Francisco, CA 94080.

DESCRIPTION OF CAPITAL STOCK

General

We are authorized to issue 120,000,000 shares of common stock, $0.001 par value, and 10,000,000 shares of undesignated preferred stock, $0.001 par value.

Common Stock

Assuming the conversion of all of our preferred stock into 17,099,624 shares of common stock, as of January 15, 2004, we had 19,528,836 shares of common stock outstanding that were held of record by approximately 139 stockholders.

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock to be issued upon the closing of this offering will be fully paid and nonassessable.

Preferred Stock

Upon the closing of this offering, our board of directors will have the authority, without action by our stockholders, to designate and issue up to 10,000,000 shares of preferred stock in one or more series. The board of directors may also designate the rights, preferences and privileges of each series of preferred stock; any or all of which may be greater than the rights of the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the common stock until the board of directors determines the specific rights of the holders of the preferred stock. However, these effects might include:

- restricting dividends on the common stock;
- diluting the voting power of the common stock;
- impairing the liquidation rights of the common stock; and
- delaying or preventing a change in control of our company without further action by the stockholders.

We have no present plans to issue any shares of preferred stock.

Warrants

As of January 15, 2004, we had the following warrants outstanding to purchase a total of 190,991 shares of our capital stock:

- 100,000 shares of our common stock at an exercise price of $0.58 per share, terminating five years after the date of our initial public offering;
- 67,500 shares of our Series A preferred stock, which are convertible into 33,750 shares of our common stock, at an exercise price of $1.00 per share, terminating 2005;
- 100,000 shares of our Series B preferred stock, which are convertible into 50,000 shares of our common stock, at an exercise price of $2.90 per share, terminating 2006; and

- 14,483 shares of our Series B preferred stock, which are convertible into 7,241 shares of our common stock, at an exercise price of $2.90 per share, terminating 2006.

Holders of Registration Rights Can Require Us to Register Shares of Our Stock for Resale

Following this offering and the private placement, the holders of 17,099,624 shares of common stock issuable upon conversion of preferred stock, 538,461 shares of common stock sold to an affiliate of GSK based on the initial public offering price of $13.00 per share for aggregate cash proceeds of approximately $7.0 million, and 190,991 shares of common stock issuable upon the exercise of warrants or conversion of preferred stock underlying warrants or their permitted transferees are entitled to rights with respect to registration of these shares under the Securities Act of 1933, as amended. These rights are provided under the terms of our agreement with the holders of registrable securities. Under these registration rights, holders of the then outstanding registrable securities may require on two occasions that we register their shares for public resale. The first such registration requires the election of the holders of registrable securities holding at least 51% of such registrable securities, and the second such registration requires the election of the holders of registrable securities holding at least twenty-five percent of such registrable securities. We are obligated to register these shares only if the requesting holders request the registration of at least 20% of the registrable securities held by such requesting holders. In addition, 12 months after the effective date of the first registration of our securities, holders of at least thirty percent of the registrable securities resulting from the conversion of shares of our Series C preferred stock may require on two occasions that we register their shares for public resale. We are obligated to register these shares resulting from the conversion of our Series C preferred stock only if the requesting holders request the registration of at least thirty percent of the registrable securities held by such requesting holders that resulted from the conversion of our Series C preferred stock. In addition, holders of registrable securities may require that we register their shares for public resale on Form S-3 or similar short-form registration, if we are eligible to use Form S-3 or similar short-form registration, and the value of the securities to be registered is at least $500,000. If we elect to register any of our shares of common stock for any public offering, the holders of registrable securities are entitled to include shares of common stock in the registration. However we may reduce the number of shares proposed to be registered in view of market conditions. We will pay all expenses in connection with any registration, other than underwriting discounts and commissions.

Anti-Takeover Effects of Some Provisions of Delaware Law

Provisions of Delaware law and our amended and restated certificate of incorporation and amended bylaws to be in effect upon the closing of this offering 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.

Anti-Takeover Effects of Provisions of Our Charter Documents

Our amended and restated certificate of incorporation to be in effect upon the closing of this offering 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 to be in effect upon the closing of this offering 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 to be in effect upon the closing of this offering 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 to be in effect upon the closing of this offering provides for the elimination of actions by written consent of stockholders upon the closing of this offering.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Mellon Investor Services LLC.

Nasdaq Stock Market Listing

The common stock has been approved for quotation on the Nasdaq National Market under the trading symbol "CYTK".

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our stock. Future sales of substantial amounts of our common stock in the public market following this offering or the possibility of these sales occurring could adversely affect prevailing market prices for our common stock or could impair our ability to raise capital through an offering of equity securities.

After this offering and the private placement, we will have outstanding 26,967,297 shares of common stock, based upon shares outstanding as of January 15, 2004. All of the shares sold in this offering will be freely tradable without restriction under the Securities Act except for any shares purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act. The remaining 19,528,836 shares of common stock held by existing stockholders are "restricted" shares as that term is defined in Rule 144 under the Securities Act. We issued and sold the restricted shares in private transactions in reliance upon exemptions from registration under the Securities Act. Restricted shares may be sold in the public market only if they are registered under the Securities Act or if they qualify for an exemption from registration, such as Rule 144 or 701 under the Securities Act, which are summarized below.

Our officers, directors and some of our stockholders, including business partners, who collectively hold an aggregate of 7,335,423 shares, and the underwriters have entered into lock-up agreements in connection with this offering. These lock-up agreements provide that, with limited exceptions, our officers, directors and other stockholders have agreed not to offer, sell, contract to sell, grant any option to purchase or otherwise dispose of any of our shares for a period of 180 days after the effective date of this offering. Goldman, Sachs & Co. may, in its sole discretion and at any time without prior notice, release all or any portion of the shares subject to these lock-up agreements.

Taking into account the lock-up agreements, additional restrictions contained in the GSK private placement purchase agreement, the number of shares, other than shares sold in the offering, that will be available for sale in the public market under the provisions of Rules 144 and 701, will be as follows:

- an additional 19,747,775 shares that become eligible for sale beginning 180 days after the effective date of this offering; and

- an additional 2,896,957 shares that become eligible for sale upon exercise of vested options 90 days after the date of this prospectus and an additional 3,064,450 shares that become eligible for sale upon the exercise of vested options 180 days after the date of this prospectus.

Following the expiration of the lock-up period, 2,858,704 shares issued upon exercise of options granted by us prior to the completion of this offering will also be available for sale in the public market pursuant to Rule 701 under the Securities Act unless those shares are held by one of our affiliates, directors or officers.

Rule 701 permits resale of shares in reliance upon Rule 144 but without compliance with restrictions of Rule 144, including the holding period requirement. In general, under Rule 144 as currently in effect, a person, or persons whose shares are aggregated, who has beneficially owned restricted shares for at least one year, including the holding period of any prior owner except an affiliate, would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- one percent of the number of shares of common stock then outstanding, which will equal approximately 269,672 shares immediately after the offering, or

- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a Form 144 with respect to such sale.

Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. Under Rule 144(k), a person who is not deemed to have been an affiliate of our company at any time during the three months preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years including the holding period of any prior owner except an affiliate, is entitled to sell the shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

Rule 701, as currently in effect, permits our employees, officers, directors or consultants who purchased shares under a written compensatory plan or contract to resell these shares in reliance upon Rule 144 but without compliance with specific restrictions. Rule 701 provides that affiliates may sell their Rule 701 shares under Rule 144 without complying with the holding period requirement and that non-affiliates may sell these shares in reliance on Rule 144 without complying with the holding period, public information, volume limitation or notice provisions of Rule 144.

We intend to file, shortly after the effectiveness of this offering, a registration statement on Form S-8 under the Securities Act covering all shares of common stock reserved for issuance under the stock plans and subject to outstanding options under our 1997 Stock Option/ Stock Issuance Plan. See “Management — Stock Plans”. Shares of common stock issued upon exercise of options under the Form S-8 will be available for sale in the public market, subject to Rule 144 volume limitations applicable to affiliates and subject to the contractual restrictions described above. As of January 15, 2004, options to purchase 2,186,732 shares of common stock were outstanding. Beginning 90 and 180 days after the effective date of this offering, approximately 2,896,957 shares and 3,064,450 shares, respectively, issuable upon the exercise of vested stock options will become eligible for sale in the public market, if the options are exercised.

Following this offering and the private placement, the holders of an aggregate of 17,099,624 shares of outstanding common stock, 538,461 shares of common stock sold to an affiliate of GSK for cash proceeds of approximately $7.0 million at a purchase price equal to the initial public offering price of $13.00 per share and 190,991 shares of common stock issuable upon the exercise of warrants or conversion of preferred stock underlying warrants have the right to require us to register their shares for sale upon meeting specific requirements. See “Description of Capital Stock — Registration Rights” for additional information regarding registration rights.

MATERIAL UNITED STATES FEDERAL TAX CONSIDERATIONS

FOR NON-UNITED STATES HOLDERS OF COMMON STOCK

This section summarizes certain material United States federal income and estate tax considerations relating to the ownership and disposition of common stock. This summary does not provide a complete analysis of all potential tax considerations. The information provided below is based on existing authorities. These authorities may change, possibly retroactively, or the IRS might interpret the existing authorities differently. In either case, the tax considerations of owning or disposing of common stock could differ from those described below. For purposes of this summary, a "non-U.S. holder" is any holder other than a citizen or resident of the United States, a corporation created or organized under the laws of the United States or any political subdivision thereof, a trust that is (i) subject to the primary supervision of a United States court and the control of one of more U.S. persons or (ii) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person or an estate whose income is subject to U.S. income tax regardless of source. If a partnership is a beneficial owner of common stock, the tax treatment of a partner in the partnership will depend upon the status of the partner and the activities of the partnership. The summary generally does not address tax considerations that may be relevant to particular investors because of their specific circumstances (such as U.S. expatriates, insurance companies, tax-exempt organizations, dealers in securities, banks or other financial institutions, "controlled foreign corporations," "passive foreign investment companies," "foreign personal holding companies," corporations that accumulate earnings to avoid United States federal income tax and investors that hold our common stock as part of a hedge, straddle or conversion transaction), or because they are subject to special rules. Finally, the summary does not describe the effects of any applicable foreign, state, or local laws.

INVESTORS CONSIDERING THE PURCHASE OF COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE CONSEQUENCES OF FOREIGN, STATE, OR LOCAL LAWS, AND TAX TREATIES.

Dividends

Payments on the common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's adjusted basis in the common stock, but not below zero, and then the excess, if any, will be treated as gain from the sale of the common stock.

Amounts treated as dividends paid to a non-U.S. holder on our common stock will generally be subject to U.S. withholding tax at a 30 percent rate. The withholding tax might not apply, however, or might apply at a reduced rate, under the terms of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence. A non-U.S. holder must demonstrate its entitlement to treaty benefits by certifying its, among other facts, nonresident status. A non-U.S. holder can meet this certification requirement by providing a Form W-8BEN or appropriate substitute form to us or our paying agent. If the holder holds the stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. For payments made to a foreign partnership or other foreign flowthrough entity, the certification requirements generally apply to the partners or other owners, and the foreign partnership or foreign intermediary will also be required to comply with additional certification requirements. Special rules, described below, apply if a dividend is effectively connected with a U.S. trade or business conducted by the non-U.S. holder.

Sale of Common Stock

Non-U.S. holders will generally not be subject to U.S. federal income tax on any gains realized on the sale, exchange, or other disposition of common stock. This general rule, however, is subject to several exceptions. For example, the gain would be subject to U.S. federal income tax if:

- the gain is effectively connected with the conduct by the non-U.S. holder of a U.S. trade or business (in which case the special rules described below apply);
- the non-U.S. holder was a citizen or resident of the United States and thus is subject to special rules that apply to expatriates;
- the non-U.S. holder is an individual who holds his or her common stock as a capital asset (generally, an asset held for investment purposes) and who is present in the United States for a period or periods aggregating 183 days or more during the taxable year in which the sale or disposition occurs and other conditions are met; or
- the rules of the Foreign Investment in Real Property Tax Act (or FIRPTA) (described below) treat the gain as effectively connected with a U.S. trade or business.

The FIRPTA rules may apply to a sale, exchange or other disposition of common stock if we are, or were within the shorter of five years before the transaction or the non-U.S. holder's holding period for the common stock, a "U.S. real property holding corporation" (or USRPHC). In general, we would be a USRPHC if interests in U.S. real estate comprised most of our assets. We do not believe that we are a USRPHC or that we will become one in the future. Even if we become a USRPHC, as long as our common stock is regularly traded on an established securities market, however, such common stock will be subject to U.S. federal income tax under the FIRPTA rules only if the non-U.S. holder actually or constructively held more than 5 percent of such regularly traded common stock.

Dividends or Gain Effectively Connected With a U.S. Trade or Business

If any dividend on common stock, or gain from the sale, exchange or other disposition of common stock, is effectively connected with a U.S. trade or business conducted by the non-U.S. holder, then the dividend or gain will be subject to U.S. federal income tax at the regular graduated rates. If the non-U.S. holder is eligible for the benefits of a tax treaty between the United States and the holder's country of residence, any "effectively connected" dividend or gain would generally be subject to U.S. federal income tax only if it is also attributable to a permanent establishment or fixed base maintained by the holder in the United States. Payments of dividends that are effectively connected with a U.S. trade or business, and therefore included in the gross income of a non-U.S. holder, will not be subject to the 30 percent withholding tax. To claim exemption from withholding, the holder must certify its qualification, which can be done by filing a Form W-8ECI. If the non-U.S. holder is a corporation, that portion of its earnings and profits that is effectively connected with its U.S. trade or business would generally be subject to a "branch profits tax." The branch profits tax rate is generally 30 percent, although an applicable income tax treaty might provide for a lower rate.

U.S. Federal Estate Tax

The estates of nonresident alien individuals are generally subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and therefore will be included in the taxable estate of a nonresident alien decedent. The U.S. federal estate tax liability of the estate of a nonresident alien may be affected by a tax treaty between the United States and the decedent's country of residence.

Backup Withholding and Information Reporting

The Code and the Treasury regulations require those who make specified payments to report the payments to the IRS. Among the specified payments are dividends and proceeds paid by brokers to their customers. The required information returns enable the IRS to determine whether the recipient properly included the payments in income. This reporting regime is reinforced by "backup withholding" rules. These rules require the payors to withhold tax from payments subject to information reporting if the recipient fails to cooperate with the reporting regime by failing to provide his taxpayer identification number to the payor, furnishing an incorrect identification number, or repeatedly failing to report interest or dividends on his returns. The withholding tax rate is currently 28 percent. The backup withholding rules do not apply to payments to corporations, whether domestic or foreign.

Payments to non-U.S. holders of dividends on common stock will generally not be subject to backup withholding, and payments of proceeds made to non-U.S. holders by a broker upon a sale of common stock will not be subject to information reporting or backup withholding, in each case so long as the non-U.S. holder certifies its nonresident status. Some of the common means of certifying nonresident status are described under "— Dividends." We must report annually to the IRS any dividends paid to each non-U.S. holder and the tax withheld, if any, with respect to such dividends. Copies of these reports may be made available to tax authorities in the country where the non-U.S. holder resides.

Any amounts withheld from a payment to a holder of common stock under the backup withholding rules can be credited against any U.S. federal income tax liability of the holder.

THE PRECEDING DISCUSSION OF U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY AND IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL, AND FOREIGN TAX CONSEQUENCES OF PURCHASING, HOLDING, AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

UNDERWRITING

Cytokinetics and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co., Credit Suisse First Boston LLC, Pacific Growth Equities, LLC and Lazard Frères & Co. LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co.	3,450,000
Credit Suisse First Boston LLC	1,725,000
Pacific Growth Equities, LLC	1,035,000
Lazard Frères & Co. LLC	690,000
Total	6,900,000

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

If the underwriters sell more shares than the total number set forth in the table above, the underwriters have an option to buy up to an additional 1,035,000 shares from Cytokinetics to cover such sales. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following tables show the per share and total underwriting discounts and commissions to be paid to the underwriters by Cytokinetics. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 1,035,000 additional shares, and exclude approximately $7,500 to be reimbursed by Cytokinetics of filing fees incident to, and fees and disbursements of counsel for the underwriters in connection with, securing any required review by the National Association of Securities Dealers, Inc. of the terms of the sale of the shares being offered.

	Paid by Cytokinetics	
	No Exercise	Full Exercise
Per Share	$ 0.91	$ 0.91
Total	$6,279,000	$7,220,850

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $0.546 per share from the initial public offering price. Any such securities dealers may resell any shares purchased from the underwriters to certain other brokers or dealers at a discount of up to $0.10 per share from the initial public offering price. If all the shares are not sold at the initial public offering price, the representatives may change the offering price and the other selling terms.

Cytokinetics, its directors, officers and substantially all of its stockholders have agreed with the underwriters not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the representatives. This agreement does not apply to Cytokinetics with respect to options or shares of its common stock issued pursuant to any existing employee benefit plans, the private placement of up to $7,000,000 of the Company's common stock issued to an affiliate of GlaxoSmithKline immediately prior to the completion of the offering or to new shares of Cytokinetics'

common stock issued or sold in connection with any corporate strategic development transaction or any merger or acquisition transaction up to an aggregate amount of ten percent (10%) of the outstanding shares of Cytokinetics' common stock following completion of the offering of shares offered by this prospectus; provided that the recipient of any such shares agrees to be bound by the restrictions described in this paragraph. See "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares. The initial public offering price will be negotiated among Cytokinetics and the representatives. Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be Cytokinetics' historical performance, estimates of the business potential and earnings prospects of Cytokinetics, an assessment of Cytokinetics' management and the consideration of the above factors in relation to market valuation of companies in related businesses.

The common stock has been approved for quotation on the Nasdaq National Market under the symbol "CYTK".

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Shorts sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares from Cytokinetics in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option granted to them. "Naked" short sales are any sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or retarding a decline in the market price of Cytokinetics' stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued at any time. These transactions may be effected on the Nasdaq National Market, in the over-the-counter market or otherwise.

Each underwriter has represented, warranted and agreed that (i) it has not offered or sold and, prior to the expiry of a period of six months from the Closing date, will not offer or sell any shares to persons in the United Kingdom except to persons whose ordinary activities involve them acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995; (ii) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment

activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 ("FSMA")) received by it in connection with the issue or sale of any shares in circumstances in which section 21(1) of the FSMA does not apply to the Issuer; and (iii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold, transferred or delivered, as part of their initial distribution or at any time thereafter, directly or indirectly, to any individual or legal entity in the Netherlands other than to individuals or legal entities who or which trade or invest in securities in the conduct of their profession or trade, which includes banks, securities intermediaries, insurance companies, pension funds, other institutional investors and commercial enterprises which, as an ancillary activity, regularly trade or invest in securities.

The shares being offered may not be offered or sold by means of any document other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent, or in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32) of Hong Kong, and no advertisement, invitation or document relating to the shares being offered may be issued, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares being offered which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made thereunder.

This prospectus has not been and will not be registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each syndicate member acknowledges that the shares may not be offered or sold, or be made the subject of an invitation for subscription or purchase, nor may this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares being offered be circulated or distributed, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor or other person specified Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "Securities and Futures Act") (ii) to a sophisticated investor, and in accordance with the conditions, specified in Section 275 of the Securities and Futures Act, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the Securities and Futures Act.

Each underwriter has acknowledged and agreed that the shares being offered have not been registered under the Securities and Exchange Law of Japan and are not being offered or sold and may not be offered or sold, directly or indirectly, in Japan or to or for the account of any resident of Japan, except (1) pursuant to an exemption from the registration requirements of the Securities and Exchange Law of Japan and (ii) in compliance with any other applicable requirements of Japanese law. As part of this offering, the underwriters may offer securities in Japan to a list of 49 offerees in accordance with the above provisions.

The underwriters do not expect sales to discretionary accounts to exceed five percent of the total number of shares offered.

Cytokinetics estimates that its share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $1,876,000.

Cytokinetics has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

In connection with the Company's Series C and Series E preferred stock financings, affiliates of Credit Suisse Group purchased an aggregate of 4,210,527 shares of Series C preferred stock and 2,000,000 shares of Series E preferred stock for an aggregate purchase price of $20,000,003 and $10,000,000, respectively (which are convertible into 3,105,263 shares of common stock upon

consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split). Because Credit Suisse First Boston LLC is an underwriter and, as a result of its affiliation with Credit Suisse Group and the Company, the underwriters may be deemed to have a "conflict of interest" under Rule 2720(b)(7) of the Conduct Rules of the National Association of Securities Dealers, Inc. Accordingly, this offering will be made in compliance with the applicable provisions of Rule 2720 of the conduct rules. Rule 2720 requires that the initial public offering price can be no higher than that recommended by a "qualified independent underwriter," as defined by the NASD. Goldman, Sachs & Co. has served in that capacity and performed due diligence investigations and reviewed and participated in the preparation of the registration statement of which this Prospectus forms a part. Goldman, Sachs & Co. has received $10,000 from the Company as compensation for such role.

At the completion of the offering and the private placement, all of the shares held by affiliates of Credit Suisse Group, except for shares constituting 4.99% of the outstanding common stock of the Company upon the closing of this offering (after giving effect to the issuance of the shares in this offering, including additional shares issued (if any) at the closing pursuant to exercise of the underwriters' option described herein) these shares will be deposited in a voting trust having Wells Fargo Bank, N.A. as the trustee. Under the terms of the voting trust agreement, the trustee has the power to vote these shares as it believes in its sole judgment is in the best interests of the stockholders of Cytokinetics. In addition, the trustee is required to vote the shares to prevent the election of more than one CSFB affiliate as a director of Cytokinetics. Each entity which deposits shares will retain the power to remove its shares from the voting trust or sell its shares to third parties so long as the transferee is not affiliated with CSFB or is otherwise considered an eligible transferee under the terms of the voting trust agreement. The voting trust agreement will expire in April 2014 or such earlier time as CSFB ceases to be an affiliate of Cytokinetics.

In addition, in reliance on NASD Rule 2710(g), CSFB and its affiliates have agreed that any of their shares of the Company's common stock or securities convertible or exchangeable for shares of common stock (including the 2,000,000 shares of the Company's Series E preferred stock, which are convertible into 1,000,000 shares of common stock upon consummation of this offering, as adjusted to reflect the 1-for-2 reverse stock split) shall not be sold during the offering, or sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the public offering, except for transfers made to the voting trust describe above. Therefore, in reliance on Rule 2710(d)(5)(D), any proceeds that CSFB or its affiliates receive following any subsequent disposition of such shares will not be deemed to be "underwriting compensation".

A prospectus in electronic format will be made available on the websites maintained by one or more of the underwriters. The underwriters may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

VALIDITY OF SECURITIES

The validity of the common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California, and for the underwriters by Latham & Watkins LLP, Menlo Park, California. A member of Wilson Sonsini Goodrich & Rosati and an investment partnership comprised of current and former members of Wilson Sonsini Goodrich & Rosati beneficially own an aggregate of 8,620 shares of our common stock.

EXPERTS

The financial statements as of December 31, 2002 and 2003 and for each of the three years in the period ended December 31, 2003 included in this Prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission, a registration statement on Form S-1 under the Securities Act with respect to the common stock offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to Cytokinetics and the common stock offered hereby, you should refer to the registration statement and to the exhibits and schedules filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules therewith may be inspected without charge at the public reference room maintained by the SEC located at 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of all or any portion of the registration statement may be obtained from such offices upon payment of prescribed fees. The public may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Index to Financial Statements

CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of

Cytokinetics, Incorporated
(a development stage enterprise):

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Cytokinetics, Incorporated (a development stage enterprise) at December 31, 2002 and 2003, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2003 and, cumulatively, for the period from August 5, 1997 (date of inception) to December 31, 2003 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PRICEWATERHOUSECOOPERS LLP

San Jose, California

March 10, 2004, except for Note 13
as to which the date is April 26, 2004

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CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Balance Sheets

(in thousands, except share and per share data)

	December 31,		Pro forma Stockholders' Equity at December 31, 2003
	2002	2003	(Note 10) (unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 16,388	$ 10,991	
Short-term investments	10,425	24,197	
Accounts receivable	8	74	
Related party accounts receivable	8	189	
Prepaids and other current assets	1,117	1,625	
Total current assets	27,946	37,076	
Long-term investments	3,648	7,857	
Property and equipment, net	9,742	8,870	
Related party notes receivable	1,146	1,146	
Restricted cash	13,106	7,199	
Other assets	580	725	
Total assets	$ 56,168	$ 62,873	
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)			
Current liabilities:			
Accounts payable	$ 1,609	$ 1,589	
Accrued liabilities	2,241	3,060	
Short-term portion of equipment financing lines	2,415	2,008	
Short-term portion of deferred revenue	3,110	2,800	
Total current liabilities	9,375	9,457	
Long-term portion of equipment financing lines	7,077	8,075	
Long-term portion of deferred revenue	7,000	4,200	
Total liabilities	23,452	21,732	
Commitments (Note 7)			
Convertible preferred stock, $0.001 par value:			
Authorized: 37,300,000 shares			
Issued and outstanding: 26,108,859 shares in 2002, 34,124,308 shares in 2003 and none pro forma (unaudited) (Note 10)			
(Liquidation preference: $94,300 in 2002 and $134,377 in 2003)	93,304	133,172	$ —
	93,304	133,172	—
Stockholders' equity (deficit):			
Common stock, $0.001 par value:			
Authorized: 61,500,000 shares			
Issued and outstanding: 1,926,596 shares in 2002, 2,307,258 shares in 2003 and 19,406,882 shares pro forma (unaudited) (Note 10)	2	2	19
Additional paid-in capital	809	5,646	138,801
Deferred stock-based compensation	(50)	(3,651)	(3,651)
Accumulated other comprehensive income	40	46	46
Deficit accumulated during the development stage	(61,389)	(94,074)	(94,074)
Total stockholders' equity (deficit)	(60,588)	(92,031)	$ 41,141
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 56,168	$ 62,873	

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

CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Statements of Operations

(in thousands, except per share data)

	Years Ended December 31,			Period from August 5, 1997 (date of inception) to December 31, 2003
	2001	2002	2003	
Revenues:				
Research and development revenues from related party	$ 6,764	$ 8,470	$ 7,703	$ 22,937
Research and development and grant revenues	302	126	74	502
License revenues from related party	1,400	2,800	2,800	7,000
Total revenues	8,466	11,396	10,577	30,439
Operating expenses:				
Research and development (1)	20,961	28,424	34,004	100,817
General and administrative (1)	5,897	6,953	9,163	28,136
Total operating expenses	26,858	35,377	43,167	128,953
Operating loss	(18,392)	(23,981)	(32,590)	(98,514)
Interest and other income	3,232	2,232	2,395	9,271
Interest and other expense	(714)	(1,331)	(2,490)	(4,831)
Net loss	$(15,874)	$(23,080)	$(32,685)	$ (94,074)
Net loss per share:				
Basic and diluted	$ (11.18)	$ (13.25)	$ (17.10)	
Weighted-average number of shares used in per share calculations:				
Basic and diluted	1,420	1,742	1,911	
Pro forma net loss per share:				
Basic and diluted (unaudited) (Note 10)			$ (1.81)	
Weighted-average number of shares used in pro forma per share calculations:				
Basic and diluted (unaudited) (Note 10)			18,025	
(1) Includes the following stock-based compensation charges:				
Research and development	$ 86	$ 4	$ 609	$ 922
General and administrative	27	2	317	347
	$ 113	$ 6	$ 926	$ 1,269

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

CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Statements of Stockholders' Deficit

(in thousands, except share and per share data)

	Common Stock		Additional Paid-In Capital	Deferred Stock-Based Compensation	Accumulated Other Comprehensive Income (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount					
Issuance of common stock upon exercise of stock options for cash at $0.015 per share	147,625	$ —	$ 2	$ —	$ —	$ —	$ 2
Issuance of common stock to founders at $0.015 per share in exchange for cash in January 1998	563,054	1	7	—	—	—	8
Net loss	—	—	—	—	—	(2,015)	(2,015)
Balances, December 31, 1998.	710,679	1	9	—	—	(2,015)	(2,005)
Issuance of common stock upon exercise of stock options for cash at $0.015-$0.58 per share	287,500	—	69	—	—	—	69
Issuance of warrants, valued using Black- Scholes model	—	—	41	—	—	—	41
Deferred stock-based compensation	—	—	237	(237)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	123	—	—	123
Components of comprehensive loss:							
Unrealized loss on investments	—	—	—	—	(8)	—	(8)
Net loss	—	—	—	—	—	(7,341)	(7,341)
Total comprehensive loss	—	—	—	—	—	—	(7,349)
Balances, December 31, 1999	998,179	1	356	(114)	(8)	(9,356)	(9,121)
Issuance of common stock upon exercise of stock options for cash at $0.015-$0.58 per share	731,661	1	194	—	—	—	195
Deferred stock-based compensation	—	—	93	(93)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	101	—	—	101
Components of comprehensive loss:							
Net change in unrealized gain (loss) on investments	—	—	—	—	86	—	86
Net loss	—	—	—	—	—	(13,079)	(13,079)
Total comprehensive loss	—	—	—	—	—	—	(12,993)
Balances, December 31, 2000	1,729,840	2	643	(106)	78	(22,435)	(21,818)
Issuance of common stock upon exercise of stock options for cash at $0.015-$1.20 per share	102,480	—	56	—	—	—	56
Repurchase of common stock	(33,334)	—	(19)	—	—	—	(19)
Compensation expense for acceleration of options	—	—	20	—	—	—	20
Deferred stock-based compensation	—	—	45	(45)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	93	—	—	93
Components of comprehensive loss:							
Net change in unrealized gain on investments	—	—	—	—	190	—	190
Net loss	—	—	—	—	—	(15,874)	(15,874)
Total comprehensive loss	—	—	—	—	—	—	(15,684)

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

	Common Stock		Additional Paid-In Capital	Deferred Stock-Based Compensation	Accumulated Other Comprehensive Income (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount					
Balances, December 31, 2001	1,798,986	2	745	(58)	268	(38,309)	(37,352)
Issuance of common stock upon exercise of stock options for cash at $0.015-$1.20 per share	131,189	—	68	—	—	—	68
Repurchase of common stock	(3,579)	—	(2)	—	—	—	(2)
Deferred stock-based compensation	—	—	(2)	2	—	—	—
Amortization of deferred compensation	—	—	—	6	—	—	6
Components of comprehensive loss:							
Net change in unrealized gain on investments	—	—	—	—	(228)	—	(228)
Net loss	—	—	—	—	—	(23,080)	(23,080)
Total comprehensive loss	—	—	—	—	—	—	(23,308)
Balances, December 31, 2002	1,926,596	2	809	(50)	40	(61,389)	(60,588)
Issuance of common stock upon exercise of stock options for cash at $0.20-$1.20 per share	380,662	—	310	—	—	—	310
Stock-based compensation	—	—	158	—	—	—	158
Deferred stock-based compensation	—	—	4,369	(4,369)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	768	—	—	768
Components of comprehensive loss:							
Net change in unrealized gain on investments	—	—	—	—	6	—	6
Net loss	—	—	—	—	—	(32,685)	(32,685)
Total comprehensive loss	—	—	—	—	—	—	(32,679)
Balances, December 31, 2003	2,307,258	$ 2	$ 5,646	$ (3,651)	$ 46	$ (94,074)	$ (92,031)

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

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CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Statements of Cash Flows

(in thousands)

	Years Ended December 31,			Period from August 5, 1997 (date of inception) to December 31, 2003
	2001	2002	2003	
Cash flows from operating activities:				
Net loss	$(15,874)	$(23,080)	$(32,685)	$ (94,074)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	1,614	2,849	3,181	8,895
Loss on disposal of equipment	156	14	224	394
Gain on sale of investments	(84)	—	—	(84)
Allowance for doubtful accounts	386	(195)	—	191
Non-cash expense related to warrants issued for equipment financing lines and facility lease	7	7	—	41
Non-cash interest expense	—	—	59	59
Non-cash compensation expense for acceleration of options	20	—	—	20
Stock-based compensation	93	6	926	1,249
Changes in operating assets and liabilities:				
Accounts receivable	—	—	(66)	(74)
Related party accounts receivable	(1,261)	1,054	(181)	(380)
Prepaids and other assets	(444)	(342)	(33)	(1,150)
Accounts payable	1,280	(1,173)	498	1,589
Accrued liabilities	132	1,222	819	3,060
Other assets	(406)	(175)	(145)	(725)
Deferred revenue	12,600	(2,490)	(3,110)	7,000
Net cash used in operating activities	(1,781)	(22,303)	(30,513)	(73,989)
Cash flows from investing activities:				
(Increase) decrease in restricted cash	(6,011)	(6,870)	5,907	(7,199)
Purchases of property and equipment	(3,808)	(6,570)	(3,051)	(18,183)
Proceeds from sale of equipment	24	—	—	24
Issuance of notes receivable	(200)	(750)	—	(1,146)
Purchases of investments	(65,422)	—	(54,971)	(171,231)
Proceeds from sales and maturities of investments	51,889	36,768	36,995	139,307
Net cash provided by (used in) investing activities	(23,528)	22,578	(15,120)	(58,428)
Cash flows from financing activities:				
Proceeds from issuance of preferred stock, net of issuance costs	13,842	(50)	39,868	133,172
Proceeds from issuance of common stock	56	68	310	708
Repurchase of common stock	(19)	(2)	—	(21)
Proceeds from equipment financing lines	3,545	6,373	1,971	13,802
Repayment of equipment financing lines	(396)	(1,520)	(1,913)	(4,253)
Net cash provided by financing activities	17,028	4,869	40,236	143,408
Net increase (decrease) in cash and cash equivalents	(8,281)	5,144	(5,397)	10,991
Cash and cash equivalents, beginning of period	19,525	11,244	16,388	—
Cash and cash equivalents, end of period	$ 11,244	$ 16,388	$ 10,991	$ 10,991
Supplemental disclosure of cash flow information:				
Cash paid for interest	$ 180	$ 697	$ 833	$ 1,709
Cash paid for taxes	$ 6	$ 63	$ 15	$ 84
Supplemental disclosure of significant non-cash investing and financing activities:				
Deferred stock-based compensation	$ 45	$ (2)	$ 4,369	$ 4,742

Purchases of property and equipment through accounts payable	$ 2,502	$ 518	$ —	$ 3,020
Penalty on restructuring of equipment financing lines	$ —	$ —	$ 475	$ 475

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

CYTOKINETICS, INCORPORATED

(A Development Stage Enterprise)

Notes to Financial Statements

Note 1 — Formation and Business of the Company:

Cytokinetics, Incorporated, (the "Company") was incorporated in Delaware on August 5, 1997 to discover, develop and commercialize novel small molecule drugs specifically targeting the cytoskeleton. The Company has been primarily engaged in conducting research, developing drug candidates and product technologies, recruiting personnel and raising capital.

Note 2 — Summary of Significant Accounting Policies:

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments which potentially subject the Company to concentrations of risk consist principally of cash and cash equivalents, investments and accounts receivable. The Company's cash and cash equivalents are invested in deposits with two major banks in the United States. Deposits in these banks may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on its deposits of cash, cash equivalents, and investments.

The Company performs an ongoing credit evaluation of its' customers' financial conditions and generally does not require collateral to secure accounts receivable. The Company's exposure to credit risk associated with non-payment is affected principally by conditions or occurrences within GlaxoSmithKline ("GSK"). The Company historically has not experienced significant losses relating to accounts receivable from its primary customer. 96% of the Company's revenues for the year ended December 31, 2001 and 99% of the Company's revenues for both the years ended December 31, 2002 and 2003 were derived from GSK.

Drug candidates developed by the Company may require approvals or clearances from the Food and Drug Administration ("FDA") or other international regulatory agencies prior to commercialized sales. There can be no assurance that the Company's drug candidates will receive any of the required approvals or clearances. If the Company was denied approval or clearance or such approval was delayed, it may have a material adverse impact on the Company.

Cash and Cash Equivalents

Cash equivalents are stated at cost, which approximates market value. The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents.

Investments

Investments consist of US Corporate Bonds and commercial paper with maturities ranging from three months to two years. The Company has classified all investments as available-for-sale and, as a result, carries such amounts at fair value. Unrealized gains and losses are included in accumulated other comprehensive income (loss) in stockholders' equity until realized. Realized gains and losses on sales of all such securities are reported in earnings and computed using the specific identification

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cost method. Realized gains or losses and charges for other-than-temporary declines in value, if any, on available-for-sale securities are reported in other income or expense as incurred. The Company periodically evaluates these investments for other-than-temporary impairment.

Fair Value of Financial Instruments

For financial instruments consisting of cash and cash equivalents, accounts payable and accrued liabilities included in the Company's financial statements, the carrying amounts are reasonable estimates of fair value due to their short maturities. Estimated fair values for marketable securities, which are separately disclosed elsewhere, are based on quoted market prices for the same or similar instruments. Based on borrowing rates currently available to the Company, the carrying value of the equipment financing lines approximate fair value.

Property and Equipment

Property and equipment are stated at cost and depreciated on a straight-line basis over the estimated useful lives of the related assets, which is generally three to five years. Amortization of leasehold improvements is computed using the straight-line method over the shorter of the remaining lease term or the estimated useful life of the related assets, typically five years. Upon sale or retirement of assets, the costs and related accumulated depreciation and amortization are removed from the balance sheet and the resulting gain or loss is reflected in operations. Maintenance and repairs are charged to operations as incurred.

Impairment of long-lived assets

In accordance with the provisions of Statement of Financial Accounting Standards Board ("SFAS") No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets," the Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Under SFAS No. 144, an impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount. Impairment, if any, is measured as the amount by which the carrying amount of a long-lived asset exceeds its fair value. Through December 31, 2003, there have been no such impairments.

Revenue Recognition

The Company recognizes revenue in accordance with Securities and Exchange Commission Staff Accounting Bulletin, or SAB, No. 101, Revenue Recognition in Financial Statements, as amended by SAB Nos. 101A and 101B. SAB No. 101 requires that four basic criteria must be met before revenue can be recognized: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the fee is fixed and determinable; and collectibility is reasonably assured. Determination of whether persuasive evidence of an arrangement exists and whether delivery has occurred or services have been rendered are based on management's judgments regarding the fixed nature of the fee charged for research performed and milestones met, and the collectibility of those fees. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected.

Research and development revenues, which are earned under agreements with third parties for contract research and development activities, are recorded as the related expenses are incurred.

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Charges to the third parties are based upon negotiated rates for full time equivalent employees of the Company and actual out-of-pocket costs. Rates for full time equivalent employees are intended to approximate the Company's anticipated costs. Milestone payments are non-refundable and recognized as revenue when earned, as evidenced by achievement of the specified milestones and the absence of ongoing performance obligations. Any amounts received in advance of performance are recorded as deferred revenue. None of the revenues recognized to date are refundable if the relevant research effort is not successful.

Grant revenues are recorded as research is performed. Grant revenues are not refundable.

License revenues received in connection with strategic alliance agreements are deferred and recognized on a straight-line basis over the term of the agreement.

Research and Development Expenditures

Research and development costs are charged to operations as incurred.

Income Taxes

The Company accounts for income taxes under the liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Net Loss Per Common Share

Basic net loss per share is computed by dividing net loss by the weighted average number of vested common shares outstanding during the period. Diluted net loss per share is computed by giving effect to all potential dilutive common shares, including options, common stock subject to repurchase, warrants and convertible preferred stock. A reconciliation of the numerator and denominator used in the calculation of basic and diluted net loss per share follows (in thousands):

	Years Ended December 31,		
	2001	2002	2003
Numerator:			
Net loss	$(15,874)	$(23,080)	$(32,685)
Denominator:			
Weighted-average number of common shares outstanding	1,766	1,877	1,978
Less: Weighted-average shares subject to repurchase	(346)	(135)	(67)
Weighted-average number of common shares outstanding used in computing basic and diluted net loss per share	1,420	1,742	1,911

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Anti-dilutive Securities

The following outstanding options, common stock subject to repurchase, convertible preferred stock and warrants were excluded from the computation of diluted net loss per common share for the periods presented because including them would have had an antidilutive effect (in thousands):

	Years Ended December 31,		
	2001	2002	2003
Convertible preferred stock (as if converted)	13,092	13,092	17,100
Options to purchase common stock	1,412	2,061	2,244
Common stock subject to repurchase	216	89	144
Warrants to purchase common stock	100	100	100
Warrants to purchase convertible preferred stock (as if converted)	84	84	91
	14,904	15,426	19,679

Stock-based Compensation

The Company accounts for stock-based employee compensation arrangements in accordance with the provisions of Accounting Principles Board Opinion No. 25 (“APB 25”), “Accounting for Stock Issued to Employees,” Statement of Financial Accounting Standards No. 123 (“SFAS No. 123”), “Accounting for Stock-Based Compensation” and complies with the disclosure requirements of Statement of Financial Accounting Standards (“SFAS”) No. 148, “Accounting for Stock-Based Compensation and Disclosure an Amendment of FASB Statement No. 123.” Under APB 25, compensation expense is based on the difference, if any, on the date of grant, between the estimated fair value of the Company’s common stock and the exercise price. SFAS No. 123 defines a “fair value” based method of accounting for an employee stock option or similar equity investment.

The Company accounts for equity instruments issued to nonemployees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force (“EITF”) Issue No. 96-18, “Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling Goods, or Services.”

As the determination of fair value of all options granted to employees after such time the Company becomes a public company will include an expected volatility factor in addition to the factors described in the following table, the following results may not be representative of future periods.

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The following table illustrates the effect on net loss if the Company had applied the fair value recognition provisions of SFAS 123 to stock-based employee compensation arrangements (in thousands):

	Years Ended December 31,		
	2001	2002	2003
Net loss, as reported	$(15,874)	$(23,080)	$(32,685)
Add: Stock-based employee compensation expense included in reported net loss	20	—	536
Deduct: Total stock-based employee compensation determined under fair value based method for all awards	(88)	(79)	(619)
Adjusted net loss	$(15,942)	$(23,159)	$(32,768)
Net loss per common share, basic and diluted:			
As reported	$ (11.18)	$ (13.25)	$ (17.10)
Adjusted	$ (11.23)	$ (13.29)	$ (17.15)

The value of each option granted is estimated on the date of grant using the minimum value method with the following weighted average assumptions:

	Years Ended December 31,		
	2001	2002	2003
Risk-free interest rate	6.33%	2.78%	2.80%
Expected life (in years)	5	5	5
Dividend yield	0.00%	0.00%	0.00%

Based on the above assumptions, the weighted average estimated minimum values of options granted were $0.30, $0.53 and $4.67 per share for the years ended December 31, 2001, 2002 and 2003, respectively.

Recent Accounting Pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. During December 2003, the FASB issued FIN 46R, a revision to FIN 46. FIN 46R provides a broad deferral of the latest date by which all public entities must apply FIN 46 to certain variable interest entities, to the first reporting period ending after March 15, 2004. We do not expect the adoption of FIN 46 to have a material impact upon our financial position, cash flows or results of operations.

In May, 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." SFAS No. 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability or an asset in some circumstances. Many of those instruments were previously classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003, and

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otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. It is to be implemented by reporting the cumulative effect of a change in an accounting principle for financial instruments created before the issuance date of SFAS No. 150 and still existing at the beginning of the interim period of adoption. While the effective date of certain elements of SFAS No. 150 has been deferred, we do not expect the adoption of SFAS No. 150 to have a material impact upon our financial position, cash flows or results of operations.

Note 3 — Investments:

The amortized cost and fair value of short-term and long-term investments at December 31, 2002 and 2003 are as follows (in thousands):

	December 31, 2002				
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Maturity Dates
US Corporate Bonds	$ 9,147	$ 32	$ (10)	$ 9,169	01/03 - 11/03
Foreign Corporate Bonds	1,253	3	—	1,256	02/03
Total short-term investments	$10,400	$ 35	$ (10)	$10,425	
US Corporate Bonds	$ 3,633	$ 15	$ —	$ 3,648	02/04
Total long-term investments	$ 3,633	$ 15	$ —	$ 3,648	

	December 31, 2003				
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Maturity Dates
US Corporate Bonds	$24,182	$ 16	$ (1)	$24,197	1/04 - 8/04
Total short-term investments	24,182	16	(1)	24,197	
US Corporate Bonds	7,826	31	—	7,857	7/05 - 8/05
Total long-term investments	$ 7,826	$ 31	$ —	$ 7,857	

There were no realized gains or losses in 2002 or 2003.

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Note 4 — Balance Sheet Components (in thousands):

	December 31,	
	2002	2003
Property and equipment, net:		
Computer and laboratory equipment	$13,830	$15,531
Furniture and fixtures	387	246
Leasehold improvements	982	823
	15,199	16,600
Less: Accumulated depreciation and amortization	(5,457)	(7,730)
	$ 9,742	$ 8,870

	December 31,	
	2002	2003
Accrued liabilities:		
Payroll related	$ 928	$1,348
Consulting and professional fees	452	464
Other accrued expenses	861	1,248
	$2,241	$3,060

Note 5 — Related Party Transactions:

In 1998, the Company entered into a licensing agreement with certain universities where the Company's founding scientists are also affiliates of the universities. The Company agreed to pay technology license fees, as well as milestone payments for technology developed under the licensing agreement. The Company is also obligated to make minimum royalty payments, as specified in the agreement commencing the year of product market introduction or upon an agreed upon anniversary of the licensing agreement. In 2001, 2002 and 2003, $125,000, $56,000 and $45,000 was paid to the universities under this agreement, respectively.

In 2001, the Company entered into a strategic alliance agreement with the holders of Series D Convertible Preferred Stock. In the agreement, the stockholders agreed to pay the Company an upfront licensing fee of $14,000,000 for rights to certain technologies. In addition, the stockholders agreed to pay the Company milestone payments regarding performance and developments within agreed upon projects. In conjunction with these projects, the stockholders agreed to reimburse the Company's costs associated with the strategic alliance. In 2001, the Company received $14,000,000 for the licensing fee, which is being recognized ratably over the term of the agreement. For the year ended December 31, 2001, $1,400,000 was recognized as license revenue under this agreement and for each of the years ended December 31, 2002 and 2003, $2,800,000 has been recognized as license revenue under this agreement. At December 31, 2002 and 2003, license revenue of $9,800,000 and $7,000,000, respectively, was deferred. The Company also received and recognized as revenue $2,000,000, $1,000,000 and $200,000 in performance milestone payments and $4,764,000, $7,470,000 and $7,488,000 in FTE and other reimbursements for the years ended December 31, 2001, 2002 and 2003 respectively, as no ongoing performance obligations exist.

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In 2001 and 2002, the Company extended loans for $200,000 and $100,000, respectively, to officers of the Company. The loans accrue interest at 5.18% and 5.75% and mature on November 12, 2010 and July 12, 2008, respectively. In 2002 the Company extended loans totaling $650,000 to various executives and employees of the Company. The loans accrue interest at rates ranging from 4.88% to 5.80% and will mature at various dates between 2005 and 2011. Certain of the loans will be forgiven if the officers or executives remain with the Company through the maturation of their respective loans. The Company did not extend any loans to executives or employees of the Company in 2001 or 2003. At December 31, 2003, $1.1 million is included in related party notes receivable.

The Company co-signed a loan with a major bank in the United States on the behalf of an executive of the Company. The Company has a restricted cash investment in the amount of $150,000 to collateralize the note in case of officer default (included in restricted cash), and agreed to make all interest payments on the loan. As of December 31, 2003, the amount of the loan is $150,000, and the Company made interest payments totaling $8,000, $9,000 and $9,000 in 2001, 2002 and 2003 respectively.

Note 6 — Equipment Financing Line:

In September of 1998, the Company obtained an equipment line of credit. The Company could borrow an amount not to exceed $1,500,000, available in minimum installments of $250,000 until September 1999, upon which the line expired. In 1999, the Company made three draws on this line of credit for $663,000, $253,000 and $370,000 with effective interest rates of 13.24%, 13.3% and 13.09%, respectively. All of these loans are payable in 48 monthly installments with an additional 15% ending balloon payment. In connection with this line the Company issued warrants (Note 8).

In December 1999, the Company obtained an additional equipment line of credit. The Company could borrow an amount not to exceed $5,000,000, available until December 2000, upon which the line expired. In 2000, the Company made two draws on this line of credit for $549,000 and $78,000 with effective interest rates of 13.17% and 15.18%, respectively. These loans are payable in 48 and 36 monthly installments, respectively, with an additional 15% ending balloon payment. In connection with this line, the Company issued warrants (Note 8).

In January 2001, the Company entered into a new financing agreement under which the Company may borrow up to $6,000,000 through a financing line of credit. In 2001, the Company made four draws on this line of credit for $1,702,000, $140,000, $997,000, and $706,000 with effective interest rates of 10.34%, 10.4%, 10.34%, and 10.4%, respectively, and with financing terms of 60 months, 36 months, 60 months, and 36 months, respectively. In 2002, the Company made one additional draw on this line of credit for $2,448,000 with an effective interest rate of 10.34% and with financing terms of 60 months. In connection with this line, the Company is obligated to maintain a $5,550,000 letter of credit as collateral against the line of credit (Note 7).

In July 2002, the Company entered into a new financing agreement under which the Company may borrow up to $7,500,000 through a financing line of credit. In 2002, the Company made three draws on this line of credit for $1,568,000, $1,821,000, and $535,000 with effective interest rates of 8.77%, 7.61%, and 7.64%, respectively, and with financing terms of 60 months for all draws. In connection with this line, the Company is obligated to maintain a $7,500,000 letter of credit as collateral against the line of credit (Note 7).

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In March 2003, the Company executed an additional draw of approximately $1,110,000 on the July 2002 line of credit with an effective interest rate of 7.59% and a term of 60 months. In May 2003, the Company refinanced the outstanding balance of approximately $4,800,000 under the January 2001 line of credit and drew an additional $248,000, with an interest rate of 7.56% and a term of 60 months. In October 2003, the Company refinanced the outstanding balance of approximately $9,300,000 under the January 2001 line of credit (as previously refinanced) and the July 2002 line of credit, with an interest rate of 4.25% and a term of 60 months. In November 2003, the Company executed an additional draw of $614,000 on the $7,500,000 line of credit with an effective interest rate of 4.25% and a term of 60 months. In connection with this line, the Company is obligated to maintain a security deposit as collateral (Note 7).

Minimum equipment lease line principal payments are as follows (in thousands):

2004	$ 2,008
2005	1,933
2006	2,017
2007	2,104
2008	2,021
Total minimum principal payments	$10,083

Note 7 — Commitments:

Leases

The Company leases office space and equipment under noncancelable operating leases with various expiration dates through 2013. Rent expense was $2,250,000, $2,220,000, $2,200,100 and $8,450,500 for the years ended December 31, 2001, 2002 and 2003, and for the period from August 5, 1997 (date of inception) through December 31, 2003, respectively. The terms of the facility lease provide for rental payments on a graduated scale. The Company recognizes rent expense on a straight-line basis over the lease period, and has deferred the rent expense paid but not incurred.

During 2001, the Company subleased a portion of their building. Sublease income for the year ended December 31, 2001 was $313,000 which has been offset against rent expense.

Future minimum lease payments under noncancelable operating leases are as follows (in thousands):

Year Ending December 31,	Operating Leases
2004	$ 1,689
2005	1,656
2006	1,552
2007	1,598
2008 through end of lease	8,698
	$ 15,193

Restricted Cash

During 1999, $75,000 of cash was pledged as collateral for the corporate employee credit cards issued to employees for travel and other expenses and is classified as restricted cash on the balance sheet. During 2001, this amount was increased by $10,500 due to the increase in

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headcount. During 2003, the Company changed credit card issuers and this collateral is no longer required.

The Company also had a restricted certificate of deposit in the amount of $150,000 during 2003 and 2002 (see Note 5) pledged as collateral on a loan.

In 2001, the Company purchased a $6,000,000 certificate of deposit to collateralize a letter of credit in conjunction with an equipment financing line (see Note 6). This amount was classified as restricted cash at December 31, 2001. In October 2002, the Company renegotiated the terms of the letter of credit and pledged $5,550,000 of its investment account to collateralize the renegotiated letter of credit. The balance pledged shall automatically be reduced by $90,000 each month until October 31, 2003. At December 31, 2002, $5,370,000 was included in restricted cash. Due to debt restructuring during 2003, this certificate of deposit is no longer required.

The Company further pledged $7,500,000 of its investment account in July 2002 to collateralize a new letter of credit in conjunction with the new financing line obtained on July 1, 2002 (Note 6). The balance pledged shall automatically be reduced by $125,000 each month until December 31, 2003. At December 31, 2002 $7,500,000 was included in restricted cash. Due to debt restructuring during 2003, this certificate of deposit is no longer required.

In October 2003, the Company entered into a debt restructure with GE Capital (Note 6). Per the terms of the Security Pledge agreements, the Company was required to pledge $7,049,000, which is included in restricted cash at December 31, 2003.

Note 8 — Convertible Preferred Stock:

Under the Company's Certificate of Incorporation, the Company's Convertible Preferred Stock is issuable in series.

In April 1998, the Company sold 5,300,000 shares of Series A Convertible Preferred Stock at $1.00 per share to new investors for net cash proceeds of $5,269,000.

In August 1999, the Company sold 6,896,545 shares of Series B Convertible Preferred Stock at $2.90 per share to new and existing investors for net cash proceeds of $19,336,000.

In November 2000, the Company sold 11,578,980 shares of Series C Convertible Preferred Stock at $4.75 per share to new and existing investors for net cash proceeds of $54,857,000.

In July 2001, the Company sold 2,333,334 shares of Series D Convertible Preferred Stock at $6.00 per share to new investors for net cash proceeds of $13,842,000.

In March and April 2003, the Company sold 8,015,449 shares of Series E Convertible Preferred Stock at $5.00 per share to new and existing investors for net cash proceeds of $39,868,000.

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As of December 31, 2001 and 2002, the Convertible Preferred Stock comprised (in thousands, except share and per share data):

	Number of Shares Authorized	Number of Shares Issued and Outstanding	Proceeds, Net of Issuance Cost	Liquidation Preference per Share	Annual Dividends per Share
Series A	5,550,000	5,300,000	$ 5,269	$ 1.00	$ 0.10
Series B	7,000,000	6,896,545	19,336	2.90	0.29
Series C	12,250,000	11,578,980	54,857	4.75	0.475
Series D	2,500,000	2,333,334	13,842	$ 6.00	$ 0.60
	27,300,000	26,108,859	$ 93,304		

As of December 31, 2003, the Convertible Preferred Stock comprised (in thousands, except share and per share data):

	Number of Shares Authorized	Number of Shares Issued and Outstanding	Proceeds, Net of Issuance Cost	Liquidation Preference per Share	Annual Dividends per Share
Series A	5,550,000	5,300,000	$ 5,269	$ 1.00	$ 0.10
Series B	7,000,000	6,896,545	19,336	2.90	0.29
Series C	12,250,000	11,578,980	54,857	4.75	0.475
Series D	2,500,000	2,333,334	13,842	6.00	0.60
Series E	10,000,000	8,015,449	39,868	$ 5.00	$ 0.50
	37,300,000	34,124,308	$ 133,172		

The holders of Convertible Preferred Stock have various rights and preferences as follows:

Voting

Each share of Series A, Series B, Series C, Series D and Series E Convertible Preferred Stock has voting rights equal to an equivalent number of shares of Common Stock into which it is convertible and votes together as one class with the Common Stock.

Dividends

Holders of Convertible Preferred Stock are entitled to receive noncumulative dividends at the rates specified above when and if declared by the Board of Directors. The holders of Series A, Series B, Series C, Series D and Series E Convertible Preferred Stock will also be entitled to participate in dividends on Common Stock, when and if declared by the Board of Directors, based on the number of shares of Common Stock held on an as-if converted basis. Such dividends shall not be cumulative. No dividends on Convertible Preferred Stock or Common Stock have been declared by the Board from inception through December 31, 2003.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, including a merger, acquisition or sale of assets where the beneficial owners of the Company's Common Stock and Convertible Preferred Stock own less than 50% of the resulting voting power of the surviving entity, the holders of Convertible Preferred Stock are entitled to receive an amount equal to the liquidation preference specified above plus any declared but unpaid dividends prior to and in preference to any

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distribution to the holders of Common Stock. If, upon the occurrence of such event, the assets and funds thus distributed among the holders of the Convertible Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of the Convertible Preferred Stock in proportion to the per share preferential amount each such holder is otherwise entitled to receive. A change of control or sale of substantially all of the assets of the Company is considered to be a liquidation event; accordingly, the Convertible Preferred Stock is considered redeemable under generally accepted accounting principles and therefore classified as temporary equity.

Conversion

Each share of Convertible Preferred Stock, at the option of the holder, is convertible into the number of fully paid and nonassessable shares of Common Stock which results from dividing the conversion price per share in effect for the shares of such series of Convertible Preferred Stock at the time of conversion into the original issue price per share of such series of Convertible Preferred Stock. The initial conversion price per share of Series A, Series B, Series C, Series D and Series E Convertible Preferred Stock shall be the original issue price. The initial conversion price of Series A, Series B, Series C, Series D and Series E Convertible Preferred Stock is subject to adjustment from time to time, as described in the Company's Restated Certificate of Incorporation.

Conversion is automatic for the holders of Series A, Series B, Series C, Series D and Series E Convertible Preferred Stock at the then effective conversion rate immediately upon the closing of a firm commitment underwritten initial public offering pursuant to an effective registration statement under the Securities Act of 1933 covering the offer and sale of common stock in which the aggregate proceeds raised equals or exceeds $40,000,000. If the aggregate proceeds are less than $40,000,000 conversion is automatic upon the approval of at least 51% of the then outstanding shares of Preferred Stock, with all series voting together as a single class. The Company has reserved 17,099,624 shares of Common Stock for issuance upon conversion of Convertible Preferred Stock.

The Company's Convertible Preferred Stock is subject to an antidilution conversion price adjustment feature which was triggered for Series D when the Company issued Series E for a consideration per share less than the initial conversion price for Series D. The conversion price for Series D shall be adjusted downward from its initial conversion price. As of December 31, 2003 the Company has issued 8,015,449 shares of Series E Convertible Preferred Stock for consideration of $5.00 per share.

As of December 31, 2003 each share of Series A, Series B, Series C and Series E Convertible Preferred stock is convertible into common stock on a 2-for-1 basis and each share of Series D Convertible Preferred Stock is convertible into common stock on a 1.94-for-1 basis.

Warrants for Convertible Preferred Stock

In connection with an equipment line of credit, the Company issued a warrant to purchase 67,500 shares of Series A Convertible Preferred Stock for $1.00 per share in September 1999. The Company valued the warrants by using the Black-Scholes pricing model in fiscal 1999 when the line was drawn upon using the full term of seven years, a risk-free interest rate of 6.33%, a dividend yield of 0%, and volatility of 60%. The fair value was netted against the equipment line and charged to interest expense over the life of the equipment line. The amount charged to interest expense was

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$7,000, $7,000, none and $30,000 for the years ended December 31, 2001, 2002, 2003 and for the period from August 5, 1997 (date of inception) through December 31, 2003, respectively.

In connection with obtaining Series B Convertible Preferred Stock financing in August 1999, the Company agreed to issue warrants to purchase Series B Convertible Preferred Stock at $2.90 per share. The Company determined in July 2001 that the number of shares issuable under the warrant was 100,000 shares. The warrant was valued at $467,000 using the Black-Scholes pricing model using the contractual term of seven years, a risk-free interest rate of 5.37%, a dividend yield of 0%, and volatility of 60%. As the warrant relates to preferred stock issuance costs, the valuation was recorded as an issuance cost as an offset to Convertible Preferred Stock.

In connection with an equipment line of credit, the Company issued a warrant to purchase shares of Series B Convertible Preferred Stock at $2.90 per share. The Company determined in February 2004 that the number of shares issuable under the warrant is 14,483 shares. The value of the warrant was calculated using the Black-Scholes pricing model and was deemed insignificant.

Upon the effective date of the registration statement for the Company's initial public offering of its equity securities, the shares purchaseable under these warrants will be shares of the Company's common stock, in the same number that the holder otherwise would have been entitled to purchase had this warrant remained exercisable for shares of Convertible Preferred Stock.

Note 9 — Stockholders' Deficit:

Common Stock

The Company's Certificate of Incorporation, as amended, authorize the Company to issue 61,500,000 shares of $0.001 par value Common Stock. A portion of the shares sold are subject to a right of repurchase by the Company at the original purchase price of the stock subject to vesting, which is generally over a four year period from the earlier of the grant date or employee hire date, as applicable, until vesting is complete. As of December 31, 2003, 144,327 shares had been exercised under the employee stock option plan and are subject to repurchase. At December 31, 2003, in accordance with the provisions of EITF Issue No. 00-23 "Issues Related to the Accounting for Stock Compensation under APB 25 and FIN 44," the Company recorded the refundable exercise price related to the unvested shares which are subject to repurchase as a liability of $95,000.

In connection with the building lease, the Company issued warrants to purchase 100,000 shares of Common Stock for $0.58 per share in July 1999. The Company valued the warrants by using the Black-Scholes pricing model in 1999 using the contractual term of five years, a risk-free interest rate of 6.33%, a dividend yield of 0%, and volatility of 60%. The fair value was capitalized in other assets and amortized over the life of the building lease, which expired in August 2000. The amount charged to rent expense was $11,000 from August 5, 1997 (date of inception) through December 31, 2003.

Stock Option Plans

In 1997, the Company adopted the 1997 Stock Option/ Stock Issuance Plan (the "Plan"). The Plan provides for the granting of stock options to employees and consultants of the Company. Options granted under the Plan may be either incentive stock options or nonqualified stock options. Incentive stock options ("ISO") may be granted only to Company employees (including officers and directors who are also employees). Nonqualified stock options ("NSO") may be granted to Company employees and consultants. The Company has reserved 4,416,172 shares of Common Stock for issuance under the Plan.

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Options under the Plan may be granted for periods of up to ten years and at prices no less than 85% of the estimated fair value of the shares on the date of grant as determined by the Board of Directors, provided, however, that (i) the exercise price of an ISO and NSO shall not be less than 100% and 85% of the estimated fair value of the shares on the date of grant, respectively, and (ii) with respect to any 10% shareholder, the exercise price of an ISO or NSO shall not be less than 110% of the estimated fair market value of the shares on the date of grant and the term of the grant shall not exceed five years. Options may be exercisable immediately and are subject to repurchase options held by the Company which lapse over a maximum period of ten years at such times and under such conditions as determined by the Board of Directors. To date, options granted generally vest over four or five years (generally 25% after one year and monthly thereafter). Activity under the Plan is as follows:

	Options Available for Grant	Options Outstanding and Exercisable	Weighted Average Exercise Price per Share
Options authorized	1,461,945	—	$ —
Options granted	(833,194)	833,194	0.10
Options exercised	—	(147,625)	0.015
Options canceled	—	—	—
Balances at December 31, 1998	628,751	685,569	0.12
Options granted	(582,750)	582,750	0.39
Options exercised	—	(287,500)	0.24
Options canceled	50,625	(50,625)	0.20
Balances at December 31, 1999	96,626	930,194	0.25
Increase in authorized shares	1,704,227	—	—
Options granted	(967,500)	967,500	0.58
Options exercised	—	(731,661)	0.27
Options canceled	68,845	(68,845)	0.30
Balances at December 31, 2000	902,198	1,097,188	0.52
Options granted	(525,954)	525,954	1.12
Options exercised	—	(102,480)	0.55
Options canceled	109,158	(109,158)	0.67
Balances at December 31, 2001	485,402	1,411,504	0.73
Increase in authorized shares	1,250,000	—	
Options granted	(932,612)	932,612	1.20
Options exercised	—	(131,189)	0.64
Options canceled	152,326	(152,326)	0.78
Balances at December 31, 2002	955,116	2,060,601	0.95
Options granted	(613,764)	613,764	1.39
Options exercised	—	(380,662)	1.02
Options canceled	49,325	(49,325)	0.89
Balances at December 31, 2003	390,677	2,244,378	1.06

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Notes to Financial Statements — (Continued)

The options outstanding and currently exercisable by exercise price at December 31, 2003 are as follows:

	Options Outstanding at December 31, 2003		
Exercise Price	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Number Vested
$0.20	72,250	5.56	72,250
$0.58	560,375	6.69	406,235
$1.00	85,244	7.12	61,010
$1.20	1,384,584	8.67	448,781
$2.00	141,925	9.96	—
	2,244,378		988,276

As of December 31, 2003 the weighted average exercise price of outstanding, exercisable and vested options was $1.06 per share. As of December 31, 2002, there were 704,781 options outstanding, exercisable and vested at a weighted average exercise price of $0.74 per share.

Stock-based Compensation

In anticipation of the Company's initial public offering, the Company has determined that, for financial reporting purposes, the estimated value of its common stock was in excess of the exercise prices. Accordingly, for stock options issued to employees, the Company has recorded deferred stock-based compensation, and is amortizing the related expense on a straight line basis over the service period, which is generally four years. During the year ended December 31, 2003, the Company recorded deferred stock compensation in the amount of $4.0 million. During the year ended December 31, 2003, the Company recorded amortization of stock-based compensation of $536,000 in connection with options granted to employees.

In 2001, the Company accelerated the vesting of options to two employees in connection with related severance packages. The acceleration was accounted for in accordance with FIN No. 44 "Accounting for Certain Transactions Involving Stock Compensation" as a one-time charge to the statement of operations. The charge for the year ended December 31, 2001 was $20,000. The charge was equal to the intrinsic value difference between the exercise price of the accelerated options and the fair value of the common stock on the date of acceleration.

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Notes to Financial Statements — (Continued)

Stock-based compensation expense related to stock options granted to non-employees is recognized, on a straight-line basis, as the stock options are earned. The Company believes that the fair value of the stock options is more reliably measurable than the fair value of the services received. The fair value of the stock options granted is calculated at each reporting date using the Black-Scholes option-pricing model as prescribed by SFAS No. 123 using the following assumptions:

	Years Ended December 31,	
	2002	2003
Risk-free interest rate	4.48%	3.35%
Expected life (in years)	10	10
Dividend yield	0.00%	0.00%
Volatility	70%	70%

Based on the above assumptions, the weighted average fair values of options granted were $4.13 and $6.96 per share for the years ended December 31, 2002 and 2003, respectively. There were no options granted to non-employees in 2001.

The stock-based compensation expense will fluctuate as the fair market value of the common stock fluctuates. From August 5, 1997 (date of inception) to December 31, 2003, the Company has recorded $736,000 of deferred stock-based compensation related to options granted to non-employees. In connection with the grant of stock options to non-employees, the Company has recorded $93,000, $6,000 and $390,000 of stock-based compensation expense in 2001, 2002 and 2003, respectively, and $713,000 for the period from August 5, 1997 (date of inception) through December 31, 2003.

Note 10 — Pro Forma Common Shares Outstanding and Pro Forma Net Loss Per Share (Unaudited)

The pro forma common shares outstanding at December 31, 2003, the pro forma weighted-average common shares outstanding during the year ended December 31, 2002 and the pro forma weighted-average common shares outstanding during the year ended December 31, 2003 reflect the automatic conversion of all shares of convertible preferred stock outstanding into 17,099,624 shares of common stock as if such conversion had occurred on January 1, 2003 or the date of issuance, if later, in connection with the Company's contemplated initial public offering.

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Notes to Financial Statements — (Continued)

A reconciliation of the numerator and denominator used in the calculation of pro forma net loss per share follows (in thousands):

	Year Ended December 31, 2003
Numerator:	
Net loss	$ (32,685)
Denominator:	
Weighted-average number of shares outstanding used in computing basic net loss per share	1,911
Adjustments to reflect the effect of the assumed conversion of the preferred stock from the date of issuance	16,114
Weighted-average number of shares used in computing basic and diluted pro forma net income per share	18,025

Note 11 — Employee Benefit Plans:

The Company sponsors a 401(k) defined contribution plan covering all employees. There were no employer contributions in 2001, 2002 or 2003.

Note 12 — Taxes:

The Company did not record an income tax provision in the years ended December 31, 2001, 2002 and 2003 since the Company had a net taxable loss in each of those periods.

Deferred tax assets and liabilities consist of the following (in thousands):

	December 31,	
	2002	2003
Deferred tax assets:		
Fixed assets	$ 1,814	$ 997
Reserves and accruals	6,333	5,166
Net operating loss carryforwards	16,119	29,829
Research and development credits	3,658	6,079
	27,924	42,071
Less: Valuation allowance	(27,924)	(42,071)
	$ —	$ —

Management believes that, based on a number of factors, it is more likely than not that the deferred tax assets will not be realized, such that a full valuation allowance has been recorded.

The Company has federal and state net operating loss carryforwards and tax credit carryforwards of approximately $81.0 million and $36.8 million at December 31, 2003. The federal and state operating loss carryforwards expire in 2018 and 2008, respectively, if not utilized.

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Notes to Financial Statements — (Continued)

The Tax Reform Act of 1986 limits the use of operating loss tax credit carryforwards in certain situations where charges occur in stock ownership of a company. In the event the Company has a change in ownership; utilization of the carryforwards could be restricted.

Note 13 — Subsequent Events:

Initial Public Offering

On January 21, 2004, the Board of Directors authorized management of the Company to file a registration statement with the Securities and Exchange Commission permitting the Company to sell shares of its common stock to the public. If the initial public offering is closed under the terms presently anticipated, all of the convertible preferred stock outstanding will automatically convert into shares of common stock. Unaudited pro forma stockholders' equity, as adjusted for the assumed conversion of the preferred stock, is set forth on the balance sheet.

Authorized number of shares

On January 21, 2004, the Board of Directors approved an amendment to the Company's amended and restated certificate of incorporation increasing the authorized number of shares to 130,000,000, of which 120,000,000 are designated as common stock and 10,000,000 are designated as preferred stock. The amendment is subject to stockholder approval and the closing of the Company's initial public offering.

2004 Equity Incentive Plan

On January 21, 2004, the Board of Directors adopted the 2004 Equity Incentive Plan ("the 2004 Plan"), subject to stockholder approval. The 2004 Plan provides for the granting of incentive stock options, nonstatutory stock options and restricted stock purchase rights and stock bonuses to employees, and consultants.

A total of 1,600,000 shares of common stock have been authorized for issuance pursuant to the 2004 Plan. On January 1, 2005, and annually thereafter, the authorized shares will automatically be increased by a number of shares equal to the lesser of:

- 1,500,000 shares;
- 3.5% of the outstanding shares on such date; or
- an amount determined by the Board of Directors.

Employee Stock Purchase Plan

On January 21, 2004, the Board of Directors adopted the 2004 Employee Stock Purchase Plan (the "Purchase Plan"), subject to shareholder approval. 500,000 shares of common stock were reserved for issuance pursuant to the Purchase Plan.

Stock Split

On March 9, 2004, the Company's Board of Directors approved a one-for-two reverse stock split of the Company's common stock (the "reverse stock split"). Stockholder approval of the reverse stock split was obtained on March 10, 2004. The Company effected the reverse stock split on April 26, 2004. All share and per share amounts for the Company's common stock for all periods

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Notes to Financial Statements — (Continued)

presented in the accompanying financial statements have been retroactively adjusted to give effect to the reverse stock split.

Restricted stock agreement

On March 10, 2004, the Company entered into an agreement to sell $7,000,000 of restricted common stock to an affiliate of GSK upon the completion of the initial public offering at a per share price equal to the per share initial public offering price.

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

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Through and including May 24, 2004 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

6,900,000 Shares

Cytokinetics, Incorporated

Common Stock

CYTOKINETICS

Goldman, Sachs & Co.

Credit Suisse First Boston
Pacific Growth Equities, LLC
Lazard