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MEDICINES CO /DE
Form S-3/A
March 07, 2003

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON MARCH 7, 2003

REGISTRATION NO. 333-103601

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 1 TO

FORM S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

THE MEDICINES COMPANY
(Exact Name of Registrant as Specified in Its Charter)

DELAWARE
(State of Incorporation)

04-3324394
(I.R.S. Employer
Identification Number)

FIVE SYLVAN WAY, SUITE 200
PARSIPPANY, NEW JERSEY 07054
(973) 656-1616
(Address, Including Zip Code, and Telephone Number,
Including Area Code, of Registrant's Principal Executive Offices)

CLIVE A. MEANWELL
EXECUTIVE CHAIRMAN
THE MEDICINES COMPANY
FIVE SYLVAN WAY, SUITE 200
PARSIPPANY, NEW JERSEY 07054
(973) 656-1616
(Name, Address, Including Zip Code, And Telephone Number,
Including Area Code, of Agent For Service)

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(617) 526-6000

(617) 951-7000

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this registration statement becomes effective.

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

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. []

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

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), SHALL DETERMINE.

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

PROSPECTUS (Subject to Completion)
Issued March 7, 2003

4,000,000 Shares

[THE MEDICINES COMPANY LOGO]
COMMON STOCK

THE MEDICINES COMPANY IS OFFERING 4,000,000 SHARES OF ITS COMMON STOCK.

OUR COMMON STOCK IS QUOTED ON THE NASDAQ NATIONAL MARKET UNDER THE SYMBOL

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"MDCO." ON MARCH 6, 2003, THE REPORTED LAST SALE PRICE OF OUR COMMON STOCK ON THE NASDAQ NATIONAL MARKET WAS \$18.32 PER SHARE.

 INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 7.

 PRICE \$ A SHARE

| | PRICE TO PUBLIC | UNDERWRITING DISCOUNTS AND COMMISSIONS | PROCEEDS TO THE MEDICINES COMP |
|----------------|--------------------|--|-----------------------------------|
| | ----- | ----- | ----- |
| Per Share..... | \$ | \$ | \$ |
| Total..... | \$ | \$ | \$ |

The Medicines Company has granted the underwriters the right to purchase up to an additional 600,000 shares to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares to purchasers on _____, 2003.

 Joint Bookrunning Managers

MORGAN STANLEY

BEAR, STEARNS & CO. INC.

 CIBC WORLD MARKETS

, 2003

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In this prospectus, the terms "we," "our," and "us" refer to The Medicines Company and its subsidiaries, unless otherwise specified. You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information regarding us and the common stock being sold in this offering, including the "Risk Factors" section and our financial statements and accompanying notes, which are included elsewhere in this prospectus.

THE MEDICINES COMPANY

We are a specialty pharmaceutical company with growing revenue from sales of our first product, Angiomax, a direct thrombin inhibitor used as an anticoagulant in patients undergoing coronary angioplasty. The United States Food and Drug Administration, or FDA, approved Angiomax for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary angioplasty in December 2000, and we began selling the product in the United States in January 2001. Our total net revenue was \$14.2 million in 2001 and \$38.3 million in 2002, generated almost entirely from sales of Angiomax in the United States. During 2003, we expect to increase our U.S. sales force from 86 to 97 people in order to meet anticipated further increases in customer demand.

In the fall of 2002, we completed a 6,002 patient post-marketing Phase 3b/4 clinical trial of Angiomax in coronary angioplasty called REPLACE-2. The

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REPLACE-2 study was designed to evaluate Angiomax as the foundation anticoagulant for coronary angioplasty within the context of modern therapeutic products and technologies, including coronary stents. Based on 30-day patient follow-up results, Angiomax met all of the primary and secondary objectives of the trial. Since the results were announced in November 2002, additional hospitals have granted Angiomax formulary approval and hospital demand for the product has increased, and we expect that these trends will continue. The Journal of the American Medical Association published the results of REPLACE-2 on February 19, 2003.

We believe that Angiomax has the potential to become a broadly applied intravenous anticoagulant as a replacement for heparin in the treatment of arterial thrombosis, a condition involving the formation of blood clots in arteries. Arterial thrombosis is associated with life-threatening conditions such as ischemic heart disease, peripheral vascular disease and stroke, all of which result from decreased blood flow and diminished supply of oxygen to vital organs. In particular, we are evaluating Angiomax in clinical trials for additional uses in open vascular surgery such as coronary artery bypass graft surgery, or CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty.

We are evaluating clevidipine as an intravenous drug for the short-term control of high blood pressure in patients undergoing cardiac surgery. We have commenced a study in patients undergoing cardiac surgery comparing clevidipine with nitroglycerin, a drug that is typically used to control high blood pressure in patients undergoing cardiac surgery, and plan to commence a Phase 3 clinical trial program in 2003. If we gain approval from the FDA to market clevidipine, we anticipate selling it with our existing U.S. sales force.

Our core strategy is to help hospitals alleviate the growing pressure to treat patients more efficiently, including the demands to improve the effectiveness and safety of treatment while minimizing the cost. We implement this strategy by acquiring and developing products in late stages of their clinical development or after they have been approved for marketing. Cost of treatment in hospitals is predominantly driven by length of patient stay, while length of stay is

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often driven by the occurrence of treatment complications. Products that are more effective, safe and predictable, which require shorter periods of treatment or are easier to use than current products, may reduce the length of hospital stay and, as a direct result, lower total costs. We believe that products with such attributes are attractive to hospital business management, physicians, pharmacists and other care staff. We also believe that promising, well-developed products which fit this profile may be acquired on reasonable terms from larger pharmaceutical companies in the process of refining their own product portfolios. We may also acquire rights to such products from smaller companies seeking competent development and/or commercial collaborations in this specialized area of medicine.

We believe that our concentration on hospital care enables us to be highly competitive in terms of the products we can acquire from others, our development and regulatory processes, the information and services we provide to our customers and the level of resources we can commit to potential customers. This concentration has allowed us to develop in-depth know-how related to the practice of acute hospital care, and gain valuable insights into procurement processes, usage patterns, caregiver-preferences and the evaluation of products

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by our customers. We believe we can focus successfully on this specialty market without hiring a large sales force and incurring the substantial fixed overhead costs associated with such personnel and without needing to build or acquire manufacturing infrastructure.

We were incorporated in Delaware in July 1996, and our principal executive offices are located at Five Sylvan Way, Suite 200, Parsippany, New Jersey 07054. Our telephone number is (973) 656-1616, and our website address is www.themedicinescompany.com. The contents of our website are not part of this prospectus, and our internet address is included in this document as an inactive textual reference only. We own or have rights to various trademarks and tradenames used in our business, including The Medicines Company name and logo and Angiomax(R). All other trademarks and tradenames used in this prospectus are the property of their respective owners.

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THE OFFERING

| | |
|--|---|
| Common stock offered..... | 4,000,000 shares |
| Common stock to be outstanding after this offering..... | 44,841,297 shares |
| Use of proceeds..... | To fund the further clinical development and commercialization of Angiomax; to fund research and development of clevidipine; to provide working capital; and for general corporate purposes. See "Use of Proceeds." |
| Nasdaq National Market symbol..... | MDCO |

The foregoing information is based on the number of shares outstanding as of February 28, 2003.

This number does not take into account:

- 4,884,752 shares of common stock reserved for issuance pursuant to outstanding stock options at a weighted average exercise price of \$11.87 per share;
- 1,688,600 shares of common stock reserved for future awards under our stock plans; and
- 1,092,895 shares of common stock reserved for issuance pursuant to outstanding common stock purchase warrants at an exercise price of \$5.92 per share.

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In addition, except as otherwise noted, all information in this prospectus assumes no exercise of the underwriters' over-allotment option.

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SUMMARY CONSOLIDATED FINANCIAL DATA

The following is a summary of financial data included elsewhere in this prospectus. You should read the following data with the more detailed information contained in "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the accompanying notes appearing elsewhere in this prospectus. The pro forma net loss per share data reflect the conversion of our outstanding convertible notes and accrued interest, and the conversion of our outstanding redeemable convertible preferred stock and accrued dividends, into common stock upon the closing of our initial public offering in August 2000. The net loss per share data and the pro forma net loss per share data do not include the effect of any options or warrants outstanding.

| | YEAR ENDED DECEMBER 31, | | | | |
|---|-------------------------|-------------|--------------|-------------|------------|
| | 1998 | 1999 | 2000 | 2001 | 2002 |
| (IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA) | | | | | |
| STATEMENTS OF OPERATIONS DATA: | | | | | |
| Net revenue..... | \$ -- | \$ -- | \$ -- | \$ 14,248 | \$ 3,000 |
| Operating expenses: | | | | | |
| Cost of revenue..... | -- | -- | -- | 2,110 | 1,000 |
| Research and development..... | 24,005 | 30,345 | 39,572 | 32,768 | 3,000 |
| Selling, general and administrative.... | 6,248 | 5,008 | 15,034 | 36,567 | 3,000 |
| Total operating expenses..... | 30,253 | 35,353 | 54,606 | 71,445 | 8,000 |
| Loss from operations..... | (30,253) | (35,353) | (54,606) | (57,197) | (4,000) |
| Other income (expense), net..... | 1,302 | 640 | (16,686) | 2,313 | 3,000 |
| Net loss..... | (28,951) | (34,713) | (71,292) | (54,884) | (4,000) |
| Dividends and accretion to redemption value of redeemable convertible preferred stock..... | (3,959) | (5,893) | (30,343) | -- | -- |
| Net loss attributable to common stockholders..... | \$ (32,910) | \$ (40,606) | \$ (101,635) | \$ (54,884) | \$ (4,000) |
| Net loss attributable to common stockholders per common share, basic and diluted..... | \$ (6.03) | \$ (80.08) | \$ (8.43) | \$ (1.67) | \$ (1.67) |
| Shares used in computing net loss attributable to common stockholders per common share, basic and diluted..... | 5,454,653 | 507,065 | 12,059,275 | 32,925,968 | 37,200,000 |
| Unaudited pro forma net loss attributable to common stockholders per common share, basic and diluted..... | | \$ (1.94) | \$ (2.10) | \$ (1.67) | \$ (1.67) |
| Shares used in computing unaudited pro forma net loss attributable to common stockholders per common share, basic and diluted..... | | 17,799,876 | 24,719,075 | 32,925,968 | 37,200,000 |

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The as adjusted balance sheet data below reflect our sale of 4,000,000 shares of common stock in this offering assuming a public offering price of \$18.32 per share, the last reported sale price of our common stock on the Nasdaq National Market on March 6, 2003, after deducting underwriting discounts and commissions and all estimated offering expenses that are payable by us.

| | AS OF DECEMBER 31, 2002 | |
|--|-------------------------|-------------|
| | ACTUAL | AS ADJUSTED |
| | ----- | ----- |
| | (IN THOUSANDS) | |
| BALANCE SHEET DATA: | | |
| Cash, cash equivalents, available for sale securities and accrued interest receivable..... | \$ 43,638 | \$ 112,071 |
| Working capital..... | 54,172 | 122,605 |
| Total assets..... | 75,300 | 143,734 |
| Accumulated deficit..... | (297,275) | (297,275) |
| Total stockholders' equity..... | 53,934 | 122,368 |

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RISK FACTORS

You should carefully consider the risks described below and all other information contained in this prospectus before making an investment decision. Investing in our common stock involves a high degree of risk, and you may lose all or part of your investment.

RISKS RELATED TO OUR BUSINESS

WE HAVE A HISTORY OF NET LOSSES, AND WE EXPECT TO CONTINUE TO INCUR ADDITIONAL NET LOSSES AND MAY NOT ACHIEVE OR MAINTAIN PROFITABILITY

We have incurred net losses since our inception, including net losses of approximately \$45.8 million for the year ended December 31, 2002. As of December 31, 2002, we had an accumulated deficit of approximately \$297.3 million. We expect to make substantial expenditures to further develop and commercialize our products, including costs and expenses associated with clinical trials, regulatory approval and commercialization. We will need to generate significantly greater revenues to achieve and then maintain profitability. However, we remain unsure as to when we will become profitable, if at all. And, if we do become profitable, we may not remain profitable for any substantial period of time. If we fail to achieve profitability within the time frame expected by investors or securities analysts, the market price of our common stock may decline.

OUR BUSINESS IS VERY DEPENDENT ON THE COMMERCIAL SUCCESS OF ANGIOMAX

Angiomax is our only commercial product and, we expect, will account for almost all of our revenues for the foreseeable future. The commercial success of Angiomax will depend upon its acceptance by regulators, physicians, patients and

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other key decision-makers as a safe, therapeutic and cost-effective alternative to heparin and other products used in current practice, or currently being developed. If Angiomax is not commercially successful, we will have to find additional sources of funding or curtail or cease operations.

NEAR-TERM GROWTH IN OUR SALES OF ANGIOMAX IS HIGHLY DEPENDENT ON PHYSICIAN ACCEPTANCE OF THE REPLACE-2 TRIAL

In the fall of 2002, we completed a 6,002 patient post-marketing Phase 3b/4 clinical trial of Angiomax in coronary angioplasty called REPLACE-2. In November 2002, the principal investigators of the clinical trial announced that, based on 30-day patient follow-up results, Angiomax met all of the primary and secondary objectives of the trial. We believe that the near-term commercial success of Angiomax will depend upon the extent to which physicians, patients and other key decision-makers accept the results of the REPLACE-2 trial. Since the results were announced, additional hospitals have granted Angiomax formulary approval and hospital demand for the product has increased. We cannot be certain, however, that these trends will continue. Some commentators have challenged various aspects of the trial design of REPLACE-2, the conduct of the study and the analysis and interpretation of the results from the study, including how we define bleeding and the clinical relevance of types of ischemic events. If physicians, patients and other key decision-makers do not accept the trial results, adoption of Angiomax may suffer, and our business will be materially adversely affected.

We are continuing to follow the patients involved in the REPLACE-2 trial for six-month and one-year follow-up periods and are conducting a detailed cost analysis study to examine per-patient total hospital resource consumption at U.S. clinical trial sites. If the extended follow-up data are less favorable than the 30-day patient follow-up data announced to date, or if the cost analysis is less favorable than we expect, physician adoption of Angiomax may be adversely affected.

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WE CANNOT EXPAND THE INDICATIONS FOR WHICH WE ARE MARKETING ANGIOMAX UNLESS WE RECEIVE FDA APPROVAL FOR EACH ADDITIONAL INDICATION. FAILURE TO EXPAND THESE INDICATIONS WILL LIMIT THE SIZE OF THE COMMERCIAL MARKET FOR ANGIOMAX

In December 2000, we received approval from the FDA for the use of Angiomax as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary angioplasty. One of our key objectives is to expand the indications for which Angiomax is approved for marketing by the FDA. In order to market Angiomax for these expanded indications, we will need to complete our clinical trials that are currently underway, conduct additional clinical trials, obtain positive results from those trials and obtain FDA approval for such proposed indications. If we are unsuccessful in expanding the approved indications for the use of Angiomax, the size of the commercial market for Angiomax will be limited.

IF WE DO NOT SUCCEED IN OBTAINING TIMELY APPROVAL FOR A SECOND-GENERATION PROCESS FOR THE PRODUCTION OF ANGIOMAX BULK DRUG SUBSTANCE, WE MAY NOT BE ABLE TO SUPPLY OUR CUSTOMERS

All Angiomax bulk drug substance used to date has been produced by UCB Bioproducts S.A. by means of a chemical synthesis process. Using this validated manufacturing process, UCB Bioproducts has completed the manufacture of bulk drug substance to meet our anticipated commercial supply requirements through the third quarter of 2003. We do not currently intend to purchase any additional product manufactured using this process.

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We have developed, with UCB Bioproducts, a second-generation process for the production of Angiomax bulk drug substance, which is referred to as the Chemilog process. This process involves changes to the early manufacturing steps of our current process and, we expect, will reduce our Angiomax manufacturing costs in the future. We received approvable letters from the FDA with respect to the Chemilog process on March 14, 2002 and December 12, 2002. In August 2002, we responded to the March 2002 approvable letter. In the December 2002 approvable letter to us and in a corresponding letter to UCB Bioproducts, the FDA requested additional data. In February 2003, we submitted what we believe to be the additional data requested by the FDA from us. Concurrently, UCB Bioproducts submitted what we believe to be the additional data requested by the FDA from UCB Bioproducts. If the FDA does not approve the Chemilog process by July 2003, we would expect to consider purchasing additional product produced using our current process, but potentially on less favorable terms. This product would likely not be available for a significant period of time, and we could be forced to reject or limit customer orders for Angiomax until such product is available. In such event, sales of Angiomax would suffer and our business would be materially adversely affected.

FAILURE TO OBTAIN REGULATORY APPROVAL IN FOREIGN JURISDICTIONS WILL PREVENT US FROM MARKETING ANGIOMAX ABROAD

We intend to market Angiomax through distribution partners in international markets, including Europe. In order to market Angiomax in the European Union and many other foreign jurisdictions, we or our distribution partners must obtain separate regulatory approvals. Obtaining foreign approvals may require additional trials and expense. In February 1998, we submitted a Marketing Authorization Application, or MAA, to the European Agency for the Evaluation of Medicinal Products, or the EMEA, for use of Angiomax in unstable angina patients undergoing coronary angioplasty. Following extended interaction with European regulatory authorities, the Committee of Proprietary Medicinal Products of the EMEA, or CPMP, voted in October 1999 not to recommend Angiomax for approval in coronary angioplasty. We withdrew our application to the EMEA in 1999 and plan to resubmit an MAA with the results of the REPLACE-2 trial. We may not be able to obtain approval or may be delayed in obtaining approval from any or all of the jurisdictions in which we seek approval to market Angiomax.

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THE DEVELOPMENT AND COMMERCIALIZATION OF OUR PRODUCTS MAY BE TERMINATED OR DELAYED, AND THE COSTS OF DEVELOPMENT AND COMMERCIALIZATION MAY INCREASE, IF THIRD PARTIES WHO WE RELY ON TO MANUFACTURE AND SUPPORT THE DEVELOPMENT AND COMMERCIALIZATION OF OUR PRODUCTS DO NOT FULFILL THEIR OBLIGATIONS

Our development and commercialization strategy entails entering into arrangements with corporate and academic collaborators, contract research organizations, distributors, third-party manufacturers, licensors, licensees and others to conduct development work, manage our clinical trials, manufacture our products and market and sell our products outside of the United States. We do not have the expertise or the resources to conduct such activities on our own and, as a result, are particularly dependent on third parties in most areas.

We may not be able to maintain our existing arrangements with respect to the commercialization of Angiomax or establish and maintain arrangements to develop and commercialize clevidipine or any additional product candidates or products we may acquire on terms that are acceptable to us. Any current or future arrangements for development and commercialization may not be successful. If we are not able to establish or maintain agreements relating to Angiomax, clevidipine or any additional products we may acquire on terms which we deem favorable, our results of operations would be materially adversely affected.

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Third parties may not perform their obligations as expected. The amount and timing of resources that third parties devote to developing, manufacturing and commercializing our products are not within our control. Furthermore, our interests may differ from those of third parties that manufacture or commercialize our products. Disagreements that may arise with these third parties could delay or lead to the termination of the development or commercialization of our product candidates, or result in litigation or arbitration, which would be time consuming and expensive.

If any third party that manufactures or supports the development or commercialization of our products breaches or terminates its agreement with us, or fails to conduct its activities in a timely manner, such breach, termination or failure could:

- delay or otherwise adversely impact the development or commercialization of Angiomax, clevidipine, our other product candidates or any additional product candidates that we may acquire or develop;
- require us to undertake unforeseen additional responsibilities or devote unforeseen additional resources to the development or commercialization of our products; or
- result in the termination of the development or commercialization of our products.

FAILURE TO RAISE ADDITIONAL FUNDS IN THE FUTURE MAY AFFECT THE DEVELOPMENT, MANUFACTURE AND SALE OF OUR PRODUCTS

Our operations to date have generated a substantial need for cash, and this negative cash flow from operations may persist. Our ability to generate positive operating cash flow is highly dependent on our ability to achieve our revenue targets. The clinical development and regulatory approval of Angiomax for additional indications, the clinical development and regulatory approval of clevidipine and the acquisition and development of additional product candidates by us will require a commitment of substantial funds. Our future capital requirements are dependent upon many factors and may be significantly greater than we expect.

We believe, based on our current operating plan, which includes anticipated revenues from Angiomax and interest income, and the proceeds of this offering, that our current cash, cash equivalents and available for sale securities will be sufficient to fund our operations for the foreseeable future. If our existing resources are insufficient to satisfy our liquidity requirements due to slower than anticipated sales of Angiomax or otherwise, or if we acquire additional product candidates, we may need to sell additional equity or debt securities or seek additional financing through other arrangements. Any sale of additional equity or debt securities may result in additional dilution to our stockholders, and we cannot be certain

that additional public or private financing will be available in amounts or on terms acceptable to us, if at all. If we are unable to obtain this additional financing, we may be required to delay, reduce the scope of, or eliminate one or more of our planned research, development and commercialization activities, which could harm our financial condition and operating results. In addition, in order to obtain additional financing, we may be required to relinquish rights to products, product candidates or technologies that we would not otherwise relinquish.

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WE DEPEND ON A SINGLE SUPPLIER FOR THE PRODUCTION OF ANGIOMAX BULK DRUG SUBSTANCE AND A DIFFERENT SINGLE SUPPLIER TO CARRY OUT ALL FILL-FINISH ACTIVITIES FOR ANGIOMAX

We do not manufacture any of our products and do not plan to develop any capacity to manufacture them. Currently, we obtain all of our Angiomax bulk drug substance from one manufacturer, UCB Bioproducts, and rely on another manufacturer, Ben Venue Laboratories, Inc., to carry out all fill-finish activities for Angiomax, which includes final formulation and transfer of the drug into vials where it is then freeze-dried and sealed. The terms of our agreement with UCB Bioproducts require us to purchase a substantial portion of our Angiomax bulk drug product from UCB Bioproducts which could hinder our ability to obtain an additional supplier for Angiomax.

The FDA requires that all manufacturers of pharmaceuticals for sale in or from the United States achieve and maintain compliance with the FDA's current Good Manufacturing Practice, or cGMP, regulations and guidelines. There are a limited number of manufacturers that operate under cGMP regulations capable of manufacturing Angiomax. We do not currently have alternative sources for production of Angiomax bulk drug substance or to carry out fill-finish activities. In the event that either of our current manufacturers is unable to carry out its respective manufacturing obligations, we may be unable to obtain alternative manufacturing, or obtain such manufacturing on commercially reasonable terms or on a timely basis. If we were required to transfer manufacturing processes to other third party manufacturers, we would be required to satisfy various regulatory requirements, which could cause us to experience significant delays in receiving an adequate supply of Angiomax. Any delays in the manufacturing process may adversely impact our ability to meet commercial demands for Angiomax on a timely basis and supply product for clinical trials of Angiomax.

WE DO NOT OWN THE TECHNOLOGY UNDERLYING THE CHEMILOG PROCESS, AND MAY BE UNABLE TO UTILIZE THE CHEMILOG PROCESS IF UCB BIOPRODUCTS BREACHES OUR AGREEMENT

Our agreement with UCB Bioproducts for the supply of Angiomax bulk drug substance provides that UCB Bioproducts owns all of the proprietary technology that was used to develop and that is employed in the Chemilog process. Although the agreement requires that UCB Bioproducts transfer this technology to a secondary supplier of Angiomax bulk drug substance or to us or an alternate supplier at the expiration of this agreement, if UCB Bioproducts fails or is unable to transfer successfully this technology, we would be unable to employ the Chemilog process to manufacture our Angiomax bulk drug substance, which could increase our manufacturing costs in the future.

CLINICAL TRIALS OF OUR PRODUCT CANDIDATES ARE EXPENSIVE AND TIME-CONSUMING, AND THE RESULTS OF THESE TRIALS ARE UNCERTAIN

Before we can obtain regulatory approvals to market any product for a particular indication, we will be required to complete pre-clinical studies and extensive clinical trials in humans to demonstrate the safety and efficacy of such product for such indication. We are evaluating Angiomax in clinical trials for additional uses in open vascular surgery such as CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty. There are numerous factors that could delay our clinical trials or prevent us from completing our trials successfully. We, or the FDA, may suspend a clinical trial at any time on various grounds, including a finding that patients are being exposed to unacceptable health risks.

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The rate of completion of clinical trials depends in part upon the rate of enrollment of patients. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments. In particular, the patient population targeted by some of our clinical trials may be small. Delays in future planned patient enrollment may result in increased costs and program delays.

In addition, clinical trials, if completed, may not show a product candidate to be safe or effective for the intended use. Results obtained in pre-clinical studies or early clinical trials are not always indicative of results that will be obtained in later clinical trials. Moreover, data obtained from pre-clinical studies and clinical trials may be subject to varying interpretations. As a result, the FDA or other applicable regulatory authorities may not approve a product in a timely fashion, or at all. Even if regulatory approval to market a product is granted, the regulatory approval may impose limitations on the indicated use for which the product may be marketed.

OUR FAILURE TO ACQUIRE AND DEVELOP ADDITIONAL PRODUCT CANDIDATES OR APPROVED PRODUCTS WILL IMPAIR OUR ABILITY TO GROW

As part of our growth strategy, we intend to acquire and develop additional product candidates or approved products. The success of this strategy depends upon our ability to identify, select and acquire pharmaceutical products that meet the criteria we have established. Because we neither have, nor intend to establish, internal scientific research capabilities, we are dependent upon pharmaceutical and biotechnology companies and other researchers to sell or license product candidates to us.

Any product candidate we acquire will require additional research and development efforts prior to commercial sale, including extensive pre-clinical and/or clinical testing and approval by the FDA and corresponding foreign regulatory authorities. All product candidates are prone to the risks of failure inherent in pharmaceutical product development, including the possibility that the product candidate will not be safe, non-toxic and effective or approved by regulatory authorities. In addition, we cannot assure you that any approved products that we develop or acquire will be:

- manufactured or produced economically;
- successfully commercialized; or
- widely accepted in the marketplace.

In addition, proposing, negotiating and implementing an economically viable acquisition is a lengthy and complex process. Other companies, including those with substantially greater financial, marketing and sales resources, may compete with us for the acquisition of product candidates and approved products. We may not be able to acquire the rights to additional product candidates and approved products on terms that we find acceptable, or at all.

A BREACH OF ANY OF THE AGREEMENTS UNDER WHICH WE LICENSE COMMERCIALIZATION RIGHTS TO PRODUCTS OR TECHNOLOGY FROM OTHERS, COULD CAUSE US TO LOSE LICENSE RIGHTS THAT ARE IMPORTANT TO OUR BUSINESS OR SUBJECT US TO CLAIMS BY OUR LICENSORS

We license rights to products and technology that are important to our business, and we expect to enter into additional licenses in the future. For instance, we have exclusively licensed the patents and patent applications relating to Angiomax from Biogen, Inc. Under our agreement with Biogen, we are

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subject to commercialization and development, sublicensing, royalty, patent prosecution and maintenance, insurance and other obligations. If we exercise our option to acquire an exclusive license to clevidipine from AstraZeneca PLC, we will be subject to similar obligations with respect to clevidipine. Any failure by us to comply with any of these obligations or any other breach by us of these license agreements could give the licensor the right to terminate the license in whole, terminate the exclusive nature of the license or bring a claim against us for damages. Any such termination or claim, particularly relating to our agreement with Biogen, could have a material adverse effect on our business. Even if we contest any such

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termination or claim and are ultimately successful, our stock price could suffer. In addition, upon any termination of a license agreement, we may be required to license to the licensor any related intellectual property that we developed.

WE MAY NOT BE ABLE TO MANAGE OUR BUSINESS EFFECTIVELY IF WE ARE UNABLE TO ATTRACT AND RETAIN KEY PERSONNEL AND CONSULTANTS

Our industry has experienced a high rate of turnover of management personnel in recent years. We are highly dependent on our ability to attract and retain qualified personnel for the acquisition, development and commercialization activities we conduct or sponsor. If we lose one or more of the members of our senior management, including our executive chairman, Dr. Clive A. Meanwell, or our chief executive officer, David M. Stack, or other key employees or consultants, our ability to implement successfully our business strategy could be seriously harmed. Our ability to replace these key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop and commercialize products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate such additional personnel.

BECAUSE THE MARKET FOR THROMBIN INHIBITORS IS COMPETITIVE, OUR PRODUCT MAY NOT OBTAIN WIDESPREAD USE

We have positioned Angiomax as a replacement for heparin, which is a widely used, inexpensive, generic drug used in patients with arterial thrombosis. Because heparin is inexpensive and has been widely used for many years, physicians and medical decision-makers may be hesitant to adopt Angiomax. In addition, due to the high incidence and severity of cardiovascular diseases, competition in the market for thrombin inhibitors is intense and growing. There are a number of direct and indirect thrombin inhibitors currently on the market, awaiting regulatory approval and in development, including orally administered agents. The thrombin inhibitors on the market include products for use in the treatment of patients with a clinical condition known as heparin-induced thrombocytopenia and thrombosis syndrome, or HIT/HITTS, patients with unstable angina and patients with deep vein thrombosis.

ANGIOMAX MAY COMPETE WITH ALL GROUPS OF ANTICOAGULANT DRUGS, INCLUDING PLATELET INHIBITORS AND FIBRINOLYTIC DRUGS, WHICH MAY LIMIT THE USE OF ANGIOMAX

In general, anticoagulant drugs may be classified into four groups: drugs that directly target and inhibit thrombin, drugs that indirectly target and inhibit thrombin, drugs that target and inhibit platelets and drugs that break down fibrin. Because each group of anticoagulants acts on different components of the clotting process, we believe that there will be continued clinical work to determine the best combination of drugs for clinical use. We expect Angiomax to be used with aspirin alone or in conjunction with platelet inhibitors or

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fibrinolytic drugs. Although platelet inhibitors and fibrinolytic drugs may be complementary to Angiomax, we recognize that Angiomax may compete with these and other anticoagulant drugs to the extent Angiomax and any of these anticoagulant drugs are approved for the same indication.

In addition, platelet inhibitors and fibrinolytic drugs may compete with Angiomax for the use of hospital financial resources. For example, many U.S. hospitals receive a fixed reimbursement amount per procedure for the angioplasties and other treatment therapies they perform. Because this amount is not based on the actual expenses the hospital incurs, hospitals may be forced to use either Angiomax or platelet inhibitors or fibrinolytic drugs but not necessarily several of the drugs together.

WE FACE SUBSTANTIAL COMPETITION, WHICH MAY RESULT IN OTHERS DISCOVERING, DEVELOPING OR COMMERCIALIZING COMPETING PRODUCTS BEFORE OR MORE SUCCESSFULLY THAN WE DO

Our industry is highly competitive. Our success will depend on our ability to acquire and develop products and apply technology, and our ability to establish and maintain markets for our products. Potential competitors in the United States and other countries include major pharmaceutical and chemical

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companies, specialized pharmaceutical companies and biotechnology firms, universities and other research institutions. Many of our competitors have substantially greater research and development capabilities and experience, and greater manufacturing, marketing and financial resources, than we do. Accordingly, our competitors may develop or license products or other novel technologies that are more effective, safer or less costly than existing products or technologies or products or technologies that are being developed by us or may obtain FDA approval for products more rapidly than we are able. Technological development by others may render our products or product candidates noncompetitive. We may not be successful in establishing or maintaining technological competitiveness.

FLUCTUATIONS IN OUR OPERATING RESULTS COULD AFFECT THE PRICE OF OUR COMMON STOCK

Our operating results may vary from period to period based on the amount and timing of sales of Angiomax, the availability and timely delivery of a sufficient supply of Angiomax, the timing and expenses of clinical trials, announcements regarding clinical trial results and product introductions by us or our competitors, the availability and timing of third-party reimbursement and the timing of regulatory approvals. If our operating results do not match the expectations of securities analysts and investors as a result of these and other factors, the trading price of our common stock will likely decrease.

WE MAY UNDERTAKE STRATEGIC ACQUISITIONS IN THE FUTURE AND ANY DIFFICULTIES FROM INTEGRATING SUCH ACQUISITIONS COULD DAMAGE OUR ABILITY TO ATTAIN OR MAINTAIN PROFITABILITY

We may acquire additional businesses and products that complement or augment our existing business. Integrating any newly acquired business or product could be expensive and time-consuming. We may not be able to integrate any acquired business or product successfully or operate any acquired business profitably. Moreover, we may need to raise additional funds through public or private debt or equity financing to acquire any businesses, which may result in dilution for stockholders and the incurrence of indebtedness.

OUR REVENUES ARE SUBSTANTIALLY DEPENDENT ON A LIMITED NUMBER OF WHOLESALERS TO

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WHICH WE SELL ANGIOMAX, AND SUCH REVENUES MAY FLUCTUATE FROM QUARTER TO QUARTER BASED ON THE BUYING PATTERNS OF THESE WHOLESALERS

We sell Angiomax primarily to a limited number of national medical and pharmaceutical distributors and wholesalers with distribution centers located throughout the United States. During the year ended December 31, 2002, revenues from the sale of Angiomax to three wholesalers totaled approximately 94% of our net revenues. Our reliance on this small number of wholesalers could cause our revenues to fluctuate from quarter to quarter based on the buying patterns of these wholesalers. In addition, if any of these wholesalers fail to pay us on a timely basis or at all, our financial position and results of operations could be materially adversely affected.

RISKS RELATED TO OUR INDUSTRY

IF WE DO NOT OBTAIN FDA APPROVALS FOR OUR PRODUCTS OR COMPLY WITH GOVERNMENT REGULATIONS, WE MAY NOT BE ABLE TO MARKET OUR PRODUCTS AND MAY BE SUBJECT TO STRINGENT PENALTIES

Except for Angiomax, which has been approved for sale in the United States for use as an anticoagulant in patients undergoing coronary angioplasty and which has been approved for sale in Canada, Israel and New Zealand for indications similar to those approved by the FDA, we do not have a product approved for sale in the United States or any foreign market. We must obtain approval from the FDA in order to sell our product candidates in the United States and from foreign regulatory authorities in order to sell our product candidates in other countries. We must successfully complete our clinical trials and demonstrate manufacturing capability before we can file with the FDA for approval to sell our products. The FDA could require us to repeat clinical trials as part of the regulatory review process. Delays in obtaining or failure to obtain regulatory approvals may:

- delay or prevent the successful commercialization of any of our product candidates;

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- diminish our competitive advantage; and

- defer or decrease our receipt of revenues or royalties.

The regulatory review and approval process is lengthy, expensive and uncertain. Extensive pre-clinical data, clinical data and supporting information must be submitted to the FDA for each additional indication to obtain such approvals, and we cannot be certain when we will receive these regulatory approvals, if ever.

In addition to initial regulatory approval, our product and product candidates will be subject to extensive and rigorous ongoing domestic and foreign government regulation of, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing of our products and product candidates. Any approvals, once obtained, may be withdrawn if compliance with regulatory requirements is not maintained or safety problems are identified. Failure to comply with these requirements may also subject us to stringent penalties.

WE MAY NOT BE ABLE TO OBTAIN OR MAINTAIN PATENT PROTECTION FOR OUR PRODUCTS, AND WE MAY INFRINGE THE PATENT RIGHTS OF OTHERS

The patent positions of pharmaceutical companies like us are generally uncertain and involve complex legal, scientific and factual issues. Our success

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depends significantly on our ability to:

- obtain and maintain U.S. and foreign patents;
- protect trade secrets;
- operate without infringing the proprietary rights of others; and
- prevent others from infringing our proprietary rights.

We may not have any patents issued from any patent applications that we own or license. If patents are granted, the claims allowed may not be sufficiently broad to protect our technology. In addition, issued patents that we own or license may be challenged, invalidated or circumvented. Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing and because publications of discoveries in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed or maintained patent applications for technology used by us or covered by our pending patent applications without our being aware of these applications.

We exclusively license U.S. patents and patent applications and corresponding foreign patents and patent applications relating to Angiomax from Biogen. In particular, we exclusively license six issued U.S. patents relating to Angiomax. The principal U.S. patent that covers Angiomax expires in 2010. The U.S. Patent and Trademark Office has rejected our application for an extension of the term of the patent beyond 2010 because the application was not filed on time. We are exploring an alternative to extend the term of the patent, but we can provide no assurance that we will be successful. We have not yet filed any independent patent applications.

We may not hold proprietary rights to some patents related to our product candidates. In some cases, others may own or control these patents. As a result, we may be required to obtain licenses under third-party patents to market some of our product candidates. If licenses are not available to us on acceptable terms, we will not be able to market these products.

We may become a party to patent litigation or other proceedings regarding intellectual property rights. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. If any patent litigation or other intellectual property proceeding in which we are involved is resolved unfavorably to us, we may be enjoined from manufacturing or selling our products without a license from the other party, and we may be held liable for significant damages. We may not be able to obtain any required license on commercially acceptable terms, or at all.

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IF WE ARE NOT ABLE TO KEEP OUR TRADE SECRETS CONFIDENTIAL, OUR TECHNOLOGY AND INFORMATION MAY BE USED BY OTHERS TO COMPETE AGAINST US

We rely significantly upon unpatented proprietary technology, information, processes and know-how. We seek to protect this information by confidentiality agreements with our employees, consultants and other third-party contractors, as well as through other security measures. We may not have adequate remedies for any breach by a party to these confidentiality agreements. In addition, our competitors may learn or independently develop our trade secrets.

WE COULD BE EXPOSED TO SIGNIFICANT LIABILITY CLAIMS IF WE ARE UNABLE TO OBTAIN INSURANCE AT ACCEPTABLE COSTS AND ADEQUATE LEVELS OR OTHERWISE PROTECT

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OURSELVES AGAINST POTENTIAL PRODUCT LIABILITY CLAIMS

Our business exposes us to potential product liability risks, which are inherent in the testing, manufacturing, marketing and sale of human healthcare products. Product liability claims might be made by patients in clinical trials, consumers, health care providers or pharmaceutical companies or others that sell our products. These claims may be made even with respect to those products that are manufactured in licensed and regulated facilities or otherwise possess regulatory approval for commercial sale.

These claims could expose us to significant liabilities that could prevent or interfere with the development or commercialization of our products. Product liability claims could require us to spend significant time and money in litigation or pay significant damages. Currently, we are covered, with respect to our commercial sales in the United States, Israel and New Zealand and our clinical trials, by primary product liability insurance in the amount of \$20.0 million per occurrence and \$20.0 million annually in the aggregate on a claims-made basis. This coverage may not be adequate to cover any product liability claims.

As we commercialize our products, we may wish to increase our product liability insurance. Product liability coverage is expensive. In the future, we may not be able to maintain or obtain such product liability insurance on reasonable terms, at a reasonable cost or in sufficient amounts to protect us against losses due to product liability claims.

OUR ABILITY TO GENERATE FUTURE REVENUE FROM PRODUCTS WILL DEPEND ON REIMBURSEMENT AND DRUG PRICING

Acceptable levels of reimbursement of drug treatments by government authorities, private health insurers and other organizations will have an effect on our ability to successfully commercialize, and attract collaborative partners to invest in the development of, product candidates. We cannot be sure that reimbursement in the United States or elsewhere will be available for any products we may develop or, if already available, will not be decreased in the future. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize our products, and may not be able to obtain a satisfactory financial return on our products.

Third-party payers increasingly are challenging prices charged for medical products and services. Also, the trend toward managed health care in the United States and the changes in health insurance programs, as well as legislative proposals to reform health care or reduce government insurance programs, may result in lower prices for pharmaceutical products, including any products that may be offered by us. Cost-cutting measures that health care providers are instituting, and the effect of any health care reform, could materially adversely affect our ability to sell any products that are successfully developed by us and approved by regulators. Moreover, we are unable to predict what additional legislation or regulation, if any, relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect such legislation or regulation would have on our business.

RISKS RELATED TO THIS OFFERING

VOLATILITY OF OUR STOCK PRICE COULD CAUSE YOU TO LOSE ALL OR PART OF YOUR INVESTMENT

The market price of our common stock, like that of the common stock of many other pharmaceutical and biotechnology companies, may be highly volatile. The stock market in general has recently

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experienced extreme price and volume fluctuations, and this volatility has affected the market prices of securities of many pharmaceutical and biotechnology companies for reasons frequently unrelated, or disproportionate, to the operating performance of those companies. The market price of our common stock may fluctuate significantly in response to the following factors, some of which are beyond our control:

- changes in securities analysts' estimates of our financial performance;
- changes in market valuations of similar companies;
- variations in our quarterly operating results;
- acquisitions and strategic partnerships;
- announcements of technological innovations or new commercial products by us or our competitors;
- disclosure of results of clinical testing or regulatory proceedings;
- changes in our management;
- the outbreak of war or a significant terrorist attack;
- broad fluctuations in stock market prices and volume; and
- general economic conditions, including inflation and unemployment rates.

Investors may not be able to resell their shares of our common stock following periods of volatility because of the market's adverse reaction to the volatility. We cannot assure you that our stock will trade at the same levels as the stock of other companies in our industry or that the market in general will sustain its current prices.

FUTURE SALES OF COMMON STOCK BY OUR EXISTING STOCKHOLDERS COULD CAUSE OUR STOCK PRICE TO FALL

Sales of substantial amounts of our common stock in the public market after the completion of this offering, or the perception that those sales could occur, could adversely affect the market price of our common stock and could materially impair our future ability to raise capital through offerings of our common stock.

WE MAY ALLOCATE THE NET PROCEEDS FROM THIS OFFERING IN WAYS WITH WHICH YOU MAY NOT AGREE

Our business plan is general in nature and is subject to change based upon changing conditions and opportunities. Our management has broad discretion in applying the net proceeds we estimate we will receive in this offering. Because the net proceeds are not required to be allocated to any specific investment or transaction, you cannot determine at this time the value or propriety of our application of the proceeds. Moreover, you will not have the opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use our proceeds. As a result, you and other stockholders may not agree with our decisions.

OUR CORPORATE DOCUMENTS AND PROVISIONS OF DELAWARE LAW MAY PREVENT A CHANGE IN CONTROL OR MANAGEMENT THAT STOCKHOLDERS MAY CONSIDER DESIRABLE

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Section 203 of the Delaware General Corporation Law and our charter and by-laws contain provisions that might enable our management to resist a takeover of our company. These provisions could have the effect of delaying, deferring, or preventing a change in control of us or a change in our management that stockholders may consider favorable or beneficial. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we incorporate by reference into this prospectus include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Our forward-looking statements are subject to a number of known and unknown risks and uncertainties, many of which are beyond our control. Although we believe these statements are accurate, we cannot guarantee future results, levels of activity, performance or achievements, and you should not place undue reliance on our forward-looking statements. Our actual results could differ materially from the results discussed in our forward-looking statements. Many important factors could cause or contribute to these differences, including but not limited to the factors discussed in the section of this prospectus entitled "Risk Factors." You should read this entire prospectus carefully, particularly "Risk Factors," before you make an investment decision. We do not assume any obligation to update any forward-looking statements.

USE OF PROCEEDS

We estimate that our net proceeds from the sale of 4,000,000 shares of common stock offered by us, assuming a public offering price of \$18.32 per share, will be approximately \$68.4 million after deducting the underwriting discounts and commissions and all estimated offering expenses that are payable by us. If the underwriters exercise their over-allotment option in full, we estimate that our net proceeds will be approximately \$78.8 million.

We anticipate using the net proceeds from this offering as follows:

- to fund further clinical development and commercialization of Angiomax;
- to fund research and development of clevidipine; and
- to provide working capital and for general corporate purposes.

We cannot estimate precisely the allocation of the net proceeds from the offering among these uses, and we will retain broad discretion over the use of the net proceeds. The amounts and timing of the expenditures may vary

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significantly depending on numerous factors, such as the progress of our research and development efforts, technological advances and the competitive environment for Angiomax. We also may use a portion of the net proceeds to acquire additional products consistent with our strategy, although we have not allocated any portion of the net proceeds for any specific acquisition.

Pending the use of the net proceeds, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities or guaranteed obligations of the United States or its agencies.

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PRICE RANGE OF COMMON STOCK

Our common stock is quoted on the Nasdaq National Market under the symbol "MDCO." The following table sets forth, for the periods indicated, the range of high and low bid information per share of our common stock, as reported on the Nasdaq National Market.

| | COMMON STOCK PRICE | |
|--|-----------------------|---------|
| | HIGH | LOW |
| YEAR ENDED DECEMBER 31, 2001 | | |
| First Quarter..... | \$20.48 | \$ 8.75 |
| Second Quarter..... | 22.05 | 9.10 |
| Third Quarter..... | 22.20 | 4.52 |
| Fourth Quarter..... | 12.15 | 4.81 |
| YEAR ENDED DECEMBER 31, 2002 | | |
| First Quarter..... | 14.81 | 9.86 |
| Second Quarter..... | 14.33 | 7.40 |
| Third Quarter..... | 12.50 | 7.22 |
| Fourth Quarter..... | 17.50 | 9.45 |
| YEAR ENDING DECEMBER 31, 2003 | | |
| First Quarter (through March 6, 2003)..... | \$19.51 | \$15.20 |

On March 6, 2003, the last reported sale price of our common stock on the Nasdaq National Market was \$18.32 per share. As of the close of business on March 6, 2003, we had 230 holders of record of our common stock.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors.

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CAPITALIZATION

The table below sets forth the following information:

- our actual capitalization as of December 31, 2002; and
- our capitalization as adjusted to give effect to the sale by us of 4,000,000 shares of common stock assuming a public offering price of \$18.32 per share in this offering, after deducting underwriting discounts and commissions and all estimated offering expenses payable by us.

You should read the following table in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and accompanying notes included elsewhere in this prospectus.

| | AS OF DECEMBER 31, 2002 | |
|---|-----------------------------------|-------------|
| | ACTUAL | AS ADJUSTED |
| | (IN THOUSANDS, EXCEPT SHARE DATA) | |
| Cash and cash equivalents, available for sale securities and accrued interest receivable..... | \$ 43,638 | \$ 112,071 |
| | ===== | ===== |
| Stockholders' equity: | | |
| Preferred stock, \$1.00 par value per share, 5,000,000 shares authorized; no shares issued and outstanding..... | -- | -- |
| Common stock, \$0.001 par value per share, 75,000,000 shares authorized; 39,894,285 shares issued and outstanding, actual; 43,894,285 shares issued and outstanding, as adjusted..... | 40 | 44 |
| Additional paid-in capital..... | 354,239 | 422,669 |
| Deferred stock compensation..... | (3,126) | (3,126) |
| Accumulated deficit..... | (297,275) | (297,275) |
| Accumulated other comprehensive income, principally foreign currency translation..... | 56 | 56 |
| | ----- | ----- |
| Total stockholders' equity..... | 53,934 | 122,368 |
| | ----- | ----- |
| Total capitalization..... | \$ 53,934 | \$ 122,368 |
| | ===== | ===== |

This table excludes the following shares as of December 31, 2002:

- 4,838,657 shares of common stock reserved for issuance pursuant to outstanding stock options at a weighted average exercise price of \$11.57 per share;
- 1,834,751 shares of common stock reserved for future awards under our stock plans; and

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- 2,373,975 shares of common stock reserved for issuance pursuant to outstanding common stock purchase warrants at an exercise price of \$5.92 per share.

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DILUTION

Our net tangible book value as of December 31, 2002 was \$53.9 million or \$1.35 per share. Net tangible book value per share is determined by dividing our net tangible book value, which is our total tangible assets less total liabilities, by the number of outstanding shares of common stock. After giving effect to the receipt of the proceeds from this offering, assuming a public offering price of \$18.32 per share, and after deducting the underwriting discounts and commissions and all estimated offering expenses payable by us, our net tangible book value as of December 31, 2002 would have been approximately \$122.4 million, or \$2.79 per share. This represents an immediate increase in pro forma net tangible book value of \$1.44 per share to existing stockholders and an immediate dilution of \$15.53 per share to new investors purchasing shares at the assumed public offering price. The following table illustrates the per share dilution:

| | |
|---|----------|
| Assumed public offering price per share..... | \$ 18.32 |
| Net tangible book value per share as of December 31, 2002..... | \$ 1.35 |
| Increase per share attributable to new investors..... | \$ 1.44 |
| Net tangible book value per share after offering..... | \$ 2.79 |
| | ----- |
| Dilution per share to new investors..... | \$ 15.53 |
| | ===== |

As of December 31, 2002, there were options outstanding to purchase a total of 4,838,657 shares of common stock at a weighted average exercise price of \$11.57 per share and common stock purchase warrants outstanding to purchase a total of 2,373,975 shares of common stock at an exercise price of \$5.92 per share. To the extent that any of these options or warrants are exercised and shares are issued, there will be further dilution to new public investors.

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SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements, including the accompanying notes, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

We have derived the statements of operations data for the five-year period ended December 31, 2002 and the balance sheet data as of December 31, 1998, 1999, 2000, 2001 and 2002 from our consolidated financial statements and related notes, which have been audited by Ernst & Young LLP, independent auditors.

The pro forma net loss per share data reflect the conversion of our

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outstanding convertible notes and accrued interest, and the conversion of our outstanding redeemable convertible preferred stock and accrued dividends, into common stock upon the closing of our initial public offering in August 2000. The net loss per share data and the pro forma net loss per share data do not include the effect of any options or warrants outstanding.

| | YEAR ENDED DECEMBER 31, | | | |
|---|---|-------------|--------------|-------------|
| | 1998 | 1999 | 2000 | 2001 |
| | (IN THOUSANDS, EXCEPT SHARE AND PER SHARE D | | | |
| STATEMENTS OF OPERATIONS DATA: | | | | |
| Net revenue..... | \$ -- | \$ -- | \$ -- | \$ 14,248 |
| Operating expenses | | | | |
| Cost of revenue..... | -- | -- | -- | 2,110 |
| Research and development..... | 24,005 | 30,345 | 39,572 | 32,768 |
| Selling, general and administrative..... | 6,248 | 5,008 | 15,034 | 36,567 |
| Total operating expenses..... | 30,253 | 35,353 | 54,606 | 71,445 |
| Loss from operations..... | (30,253) | (35,353) | (54,606) | (57,197) |
| Other income (expense), net..... | 1,302 | 640 | (16,686) | 2,313 |
| Net loss..... | (28,951) | (34,713) | (71,292) | (54,884) |
| Dividends and accretion to redemption value of redeemable convertible preferred stock..... | (3,959) | (5,893) | (30,343) | -- |
| Net loss attributable to common stockholders..... | \$ (32,910) | \$ (40,606) | \$ (101,635) | \$ (54,884) |
| Net loss attributable to common stockholders per common share, basic and diluted..... | \$ (6.03) | \$ (80.08) | \$ (8.43) | \$ (1.67) |
| Shares used in computing net loss attributable to common stockholders per common share, basic and diluted..... | 5,454,653 | 507,065 | 12,059,275 | 32,925,968 |
| Unaudited pro forma net loss attributable to common stockholders per common share, basic and diluted..... | | \$ (1.94) | \$ (2.10) | \$ (1.67) |
| Shares used in computing unaudited pro forma net loss attributable to common stockholders per common share, basic and diluted..... | | 17,799,876 | 24,719,075 | 32,925,968 |

| | AS OF DECEMBER 31, | | | |
|---|--------------------|----------|-----------|-----------|
| | 1998 | 1999 | 2000 | 2001 |
| | (IN THOUSANDS) | | | |
| BALANCE SHEET DATA: | | | | |
| Cash and cash equivalents, available for sale securities and accrued interest receivable..... | \$ 29,086 | \$ 7,238 | \$ 80,718 | \$ 54,016 |

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| | | | | |
|---|----------|----------|-----------|-----------|
| Working capital (deficit)..... | 24,570 | (4,103) | 68,023 | 59,744 |
| Total assets..... | 29,831 | 7,991 | 84,363 | 78,674 |
| Convertible notes..... | -- | 5,776 | -- | -- |
| Redeemable convertible preferred stock..... | 79,384 | 85,277 | -- | -- |
| Accumulated deficit..... | (54,319) | (94,925) | (196,560) | (251,444) |
| Total stockholders' (deficit) equity..... | (54,266) | (94,558) | 69,239 | 61,121 |

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

You should read the following discussion and analysis of our financial condition and results of operations together with "Selected Consolidated Financial Data" and our financial statements and accompanying notes included elsewhere in this prospectus. In addition to the historical information, the discussion in this prospectus contains certain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated by the forward-looking statements due to factors including, but not limited to, those set forth under "Risk Factors" and elsewhere in this prospectus.

OVERVIEW

We are a specialty pharmaceutical company with growing revenue from sales of our first product, Angiomax, a direct thrombin inhibitor used as an anticoagulant in patients undergoing coronary angioplasty. The FDA approved Angiomax for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary angioplasty in December 2000, and we began selling the product in the United States in January 2001. Our total net revenue was \$14.2 million in 2001 and \$38.3 million in 2002, generated almost entirely from sales of Angiomax in the United States.

Since our inception we have generated significant losses. We expect to continue to spend significant amounts on the development of our products and on the sales and marketing of Angiomax in 2003 and thereafter. In 2003, we plan on increasing our sales and marketing expenses by approximately 10%, in connection with anticipated increased customer demands, including expenses related to a planned increase in the size of our sales force from 86 to 97 persons. We also plan to continue to invest in clinical studies to expand the use of Angiomax and to develop new products. Additionally, we plan to continue to evaluate possible acquisitions of development-stage or approved products that would fit within our growth strategy. Accordingly, we will need to generate significantly greater revenues to achieve and then maintain profitability.

Since the announcement of the results of our REPLACE-2 clinical trial, additional hospitals have granted Angiomax formulary approval and hospital demand for the product has increased, and we expect that these trends will continue. In the fourth quarter of 2002, based on data obtained from an industry third-party, the number of hospitals purchasing Angiomax increased by approximately 25% as compared to the third quarter of 2002 and the number of hospitals purchasing four or more boxes of Angiomax increased by approximately 25% as compared to the third quarter of 2002.

Most of our expenditures to date have been for research and development activities and selling, general and administrative expenses. Research and development expenses represent costs incurred for product acquisition, clinical trials, activities relating to regulatory filings and manufacturing development efforts. We outsource our clinical trials and manufacturing development activities to independent organizations to maximize efficiency and minimize our

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internal overhead. We expense our research and development costs as they are incurred. Selling, general and administrative expenses consist primarily of salaries and related expenses, general corporate activities and costs associated with promotion and marketing activities.

In connection with our initial public offering, during the year ended December 31, 2000, we recorded deferred stock compensation on the grant of stock options of approximately \$17.3 million, representing the difference between the exercise price of such options and the fair market value of our common stock at the date of grant of such options. The exercise prices of these options were below the estimated fair market value of our common stock as of the date of grant based on the estimated price of our common stock in our initial public offering. No additional deferred compensation was recorded during 2001 and 2002 because all of the exercise prices of all grants of stock options during this period were at the fair market value of our common stock on the date of grant.

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We have not generated taxable income to date. At December 31, 2002, net operating losses available to offset future taxable income for federal income tax purposes were approximately \$218.0 million. If not utilized, federal net operating loss carryforwards will expire at various dates beginning in 2011 and ending in 2022. We have not recognized the potential tax benefit of our net operating losses in our balance sheets or statements of operations. The future utilization of our net operating loss carryforwards may be limited based upon changes in ownership pursuant to regulations promulgated under the Internal Revenue Code of 1986, as amended.

APPLICATION OF CRITICAL ACCOUNTING POLICIES

The discussion and analysis of our financial condition and results of operations is based on our consolidated 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 our reported assets and liabilities, revenues and expenses, and other financial information. Actual results may differ significantly from these estimates under different assumptions and conditions. In addition, our reported financial condition and results of operations could vary due to a change in the application of a particular accounting standard.

We regard an accounting estimate underlying our financial statements as a "critical accounting estimate" if the accounting estimate requires us to make assumptions about matters that are highly uncertain at the time of estimation and if different estimates that reasonably could have been used in the current period, or changes in the estimate that are reasonably likely to occur from period to period, would have had a material effect on the presentation of financial condition, changes in financial condition, or results of operations.

Our significant accounting policies are more fully described in Note 2 to our consolidated financial statements. Not all of these significant accounting policies, however, require management to make difficult, complex or subjective judgments or estimates. Our management has discussed our accounting policies with the audit committee of our board of directors, and we believe that our estimates relating to revenue recognition and inventory described below fit the definition of "critical accounting estimates."

REVENUE RECOGNITION

Product Sales. We sell our products primarily to wholesalers and distributors, who, in turn, sell to hospitals. We recognize revenue from product

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sales in accordance with generally accepted accounting principles in the United States, including the guidance in Staff Accounting Bulletin 101. Revenue from product sales is recognized when there is persuasive evidence of an arrangement, delivery has occurred, the price is fixed and determinable, and collectibility is reasonably assured. However, because our products are sold with limited rights of return, our recognition of revenue from product sales is also subject to Statement of Financial Accounting Standards No. 48, or SFAS 48, "Revenue Recognition When Right of Return Exists." Under SFAS 48, revenue is recognized when the price to the buyer is fixed, the buyer is obligated to pay us and the obligation to pay is not contingent on resale of the product, the buyer has economic substance apart from us, we have no obligation to bring about the sale of the product and the amount of returns can be reasonably estimated.

We record allowances for product returns, rebates and discounts at the time of sale, and report revenue net of such allowances. We must make significant judgments and estimates in determining these allowances. If actual results differ, we will likely be required to make adjustments to these allowances in the future:

- Our customers have the right to return any unopened product with less than six months to the labeled expiration date, provided that the product is returned within 12 months of the labeled expiration date. As a result, we must estimate the likelihood that product sold to wholesalers might remain in their inventory to within six months of expiration, and whether the wholesalers might decide to return the product. We base our estimates on information from customers, industry data, historic patterns of returns and on the expiration dates of product being shipped.

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- Certain hospitals purchasing our products from wholesalers have the right to receive a discounted price and a volume-based rebate if they participate in a group purchasing organization that has a contract with us. We must estimate the likelihood that product sold to wholesalers might be ultimately sold to a participating hospital. We base our estimates on information from customers, industry data, historic patterns of discounts and customer rebate thresholds.

Collaborations. Revenue from collaborative agreements with partners may include non-refundable fees or milestone payments. We record these payments as deferred revenue until contractual performance obligations have been satisfied, and we recognize these payments ratably over the term of these agreements. When the period of deferral cannot be specifically identified from the contract, we must estimate the period based upon other critical factors contained within the contract. We review these estimates at least annually, which could result in a change in the deferral period.

INVENTORIES

We record inventory upon the transfer of title from our vendors. Inventory is stated at the lower of cost or market value with cost determined using a weighted average of costs. We expensed all costs associated with the manufacture of Angiomax bulk drug product and finished product to which the title transferred to us prior to FDA approval of Angiomax and of its original manufacturing process as research and development. In December 2000, we received FDA approval for Angiomax and its original manufacturing process. Any Angiomax bulk drug product manufactured according to its original manufacturing process to which we took title after FDA approval is recorded as inventory. Together with UCB Bioproducts, we have developed, but not yet received FDA approval of, a second generation chemical synthesis process, the Chemilog process, for the

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manufacture of Angiomax bulk drug substance. All Angiomax bulk drug product manufactured using the Chemilog process to which we have taken title to date has been expensed as research and development. We review the inventory for slow moving or obsolete amounts based on expected revenues. If actual revenues are less than expected, we may be required to make allowances for excess amounts in the future.

RESULTS OF OPERATIONS

YEARS ENDED DECEMBER 31, 2002 AND 2001

Net Revenue. Net revenue increased 169% to \$38.3 million in 2002 as compared to \$14.2 million for 2001. Virtually all the revenue was from U.S. sales of Angiomax, which we commercially launched during the first quarter of 2001. The growth in 2002 was due primarily to increased use of Angiomax by existing hospital customers and penetration to new hospitals. Since we announced the results of REPLACE-2 in November 2002, additional hospitals have granted Angiomax formulary approval and hospital demand for the product has increased.

In 2002, we received \$1.5 million from Nycomed Danmark A/S as a non-refundable distributor fee. This payment has been recorded as deferred revenue and is being recognized ratably over the term of our agreement with Nycomed, which we currently estimate to be twelve years.

Cost of Revenue. Cost of revenue in 2002 was \$10.3 million, or 27% of net revenue, compared to \$2.1 million, or 15% of net revenue in 2001. Cost of revenue in 2002 consisted of expenses in connection with the manufacture of the Angiomax sold, which represented 58% of the 2002 cost of revenue, royalty expenses under our agreement with Biogen which represented 27% of the 2002 cost of revenue and the logistics costs of selling Angiomax, such as distribution, storage, and handling, which represented 14% of the 2002 cost of revenue. Prior to obtaining FDA approval for Angiomax and its original manufacturing process, all costs of manufacturing Angiomax were expensed as research and development costs. In late 2000, after obtaining FDA approval for Angiomax and its original manufacturing process, we began recording the costs of manufacturing Angiomax as a cost of revenue rather than as research and development expense. As a result, our cost of manufacturing as a percentage of net revenue increased substantially in 2002 as we sold a higher percentage of product manufactured after the date of FDA approval of Angiomax.

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During 2002, we took delivery of drug material manufactured using the Chemilog process, which we expensed as research and development. The Chemilog process must be approved by the FDA before it can be used to produce Angiomax for sale to the public. Since the Chemilog process has not yet received FDA approval, we have expensed all costs of manufacturing Angiomax using the Chemilog process as research and development. If we receive FDA approval of the Chemilog process by July 2003, we expect to begin selling in the third or fourth quarter of 2003 Angiomax produced by the Chemilog process whose cost of manufacturing was previously expensed. As a result, we expect our cost of manufacturing as a percentage of product revenue will remain at current levels early in the year and then, subject to FDA approval of the Chemilog process, decrease substantially by the end of 2003.

We have partially funded development activities relating to the Chemilog process, paying total development expenses through December 31, 2002 of approximately \$12.1 million, which includes validation and process batch costs of approximately \$4.8 million and \$6.7 million incurred in 2001 and 2002, respectively, and approximately \$600,000 of other development costs. We expensed all of these development costs as research and development in the appropriate

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period. Subject to FDA approval of the Chemilog process, we expect to be able to sell the validation and process batches of Angiomax produced using the Chemilog process. We are committed to purchase during 2003 approximately \$9.7 million of additional drug material manufactured using the Chemilog process. To the extent UCB Bioproducts transfers title to this drug material to us prior to FDA approval of the Chemilog process, we will expense these costs as research and development.

Research and Development Expenses. Research and development expenses increased 16% to \$38.0 million for 2002, from \$32.8 million for 2001. Over ninety percent of the 2002 expenses related to Angiomax development activities, of which sixty percent were associated with REPLACE-2. The increase in research and development expenses was primarily due to higher clinical development costs of \$11.6 million relating to our REPLACE-2 trial and \$1.5 million in higher manufacturing development cost incurred in connection with our receipts of Angiomax manufactured using the Chemilog process. These higher costs were partly offset by the absence of clinical development costs of the HERO-2 trial program, our Phase 3 trial of Angiomax in acute myocardial infarction, or AMI, that we completed in 2001, and other development programs savings.

We have a number of clinical trial programs currently underway, or about to commence, for expanding the applications of Angiomax for use as an intravenous anticoagulant in the treatment of arterial thrombosis. The funding for Angiomax, our main product, has represented and will continue to represent a significant portion of research and development spending. For 2002 and 2001, research and development expenses related to Angiomax included the costs of clinical trials, development manufacturing costs for the bulk drug product and the cost associated with preparation of U.S. and worldwide marketing applications. The amount of future research and development expenses associated with Angiomax are not reasonably certain as these costs are dependent upon the regulatory process and the timing for obtaining marketing approval for other applications of the product in the United States and other countries. We currently plan to expend approximately \$30 million to \$35 million on research and development in 2003, of which about 80% is planned for Angiomax.

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased 1% to \$36.8 million for 2002, from \$36.6 million for 2001. The increase in selling, general and administrative expenses of \$241,000 was primarily due to additional sales expense related to the promotion of Angiomax, offset in part by lower marketing expenses.

Noncash Stock Compensation. We amortize the deferred stock compensation that was recorded in 2000 over the respective vesting periods of the individual stock options. We recorded amortization expense for deferred compensation of approximately \$4.1 million and \$3.3 million for the years ended December 31, 2001 and 2002, respectively. We expect to record amortization expense for the deferred compensation of approximately \$2.3 million in 2003 and approximately \$800,000 in 2004. In 2002, we accelerated the vesting of stock options held by terminated employees in connection with their termination

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agreements, which resulted in \$500,000 in non-cash compensation expense. The amortization and non-cash compensation expense is included in our operating expenses in the consolidated statements of operations.

Other Income and Expense. Interest income decreased 70% to \$944,000 for 2002, from \$3.2 million for 2001. The decrease in interest income of \$2.3 million was primarily due to lower cash and available for sale securities balances and lower available interest rates on securities. For 2002, interest income was attributable to the investment of the remaining proceeds of our sales

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of shares of common stock in a private placement in May 2001 and in a public offering in 2002. In 2001, interest income was primarily attributable to the investment of the remaining proceeds of our initial public offering in August and September 2000.

We had interest expense of \$33,000 during 2002 associated with the draw down of our revolving line of credit at the end of March 2002. We terminated the revolving line of credit in August 2002. We had no interest expense for 2001. In 2001, we liquidated our \$3.0 million principal investment in Southern California Edison 5 7/8% bonds, recognizing a loss of \$850,000 on the sale.

YEARS ENDED DECEMBER 31, 2001 AND 2000

Net Revenue. We had net revenue of \$14.2 million in 2001 from sales of Angiomax. We had no net revenue in 2000.

Cost of Revenue. Cost of revenue in 2001 was \$2.1 million, or 15% of net revenue. The cost of revenue in 2001 consisted of expenses in connection with the manufacture of the Angiomax sold which represented 12% of the 2001 cost of revenue, the logistics costs of selling Angiomax such as distribution, storage, and handling, which represented 38% of the 2001 cost of revenue, and royalty expenses under our agreements with Biogen which represented 50% of the 2001 cost of revenue.

Research and Development Expenses. Research and development expenses decreased 17% from \$39.6 million in 2000 to \$32.8 million in 2001. Eighty-eight percent of the 2001 expenditures related to Angiomax development activities, of which 32% were associated with REPLACE-2 and 28% were related to our HERO-2 trial program. The decrease in research and development expenses of \$6.8 million was primarily due to higher manufacturing development costs related to UCB Bioproduct's manufacture of Angiomax bulk drug product in 2000, which was expensed prior to FDA approval, and to lower clinical development costs associated with the completion in 2001 of the HERO-2 trial program, our Phase 3 clinical trial in AMI. Partly offsetting this decrease in research and development costs were higher costs related to our trials in angioplasty called REPLACE-1 and REPLACE-2 and higher development costs related to the Chemilog process.

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased 143% to \$36.6 million in 2001 from \$15.0 million in 2000. The increase in selling, general and administrative expenses of \$21.5 million was primarily due to an increase in marketing and selling expenses and corporate infrastructure costs arising from an increase in activity relating to the commercial launch of Angiomax in 2001, including the addition of sales personnel.

Other Income and Expense. Interest income increased 19% to \$3.2 million in 2001 from \$2.7 million in 2000. The increase in interest income of \$459,000 was primarily due to interest income arising from the investment of the proceeds of our initial public offering in August and September 2000 and from the investment of the proceeds from our sale of 4.0 million shares of our common stock in a private placement in May 2001.

We had no interest expense in 2001. Interest expense of \$19.4 million in 2000 was related to interest charges and amortization of the discount on our convertible notes issued in October 1999 and March 2000.

During the second quarter of 2001, we liquidated our \$3.0 million principal investment in Southern California Edison 5 7/8% bonds, recognizing a loss of \$850,000 on the sale.

Noncash Stock Compensation. We amortize the deferred stock compensation

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that was recorded in 2000 over the respective vesting periods of the individual stock options. We recorded amortization expense

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for deferred compensation of approximately \$3.7 million and \$4.1 million for the years ended December 31, 2000 and 2001, respectively. The amortization expense is included in our operating expenses in the consolidated statements of operations.

LIQUIDITY AND CAPITAL RESOURCES

Sources of Liquidity. Since our inception, we have financed our operations through the sale of common and preferred stock, sales of convertible promissory notes and warrants, interest income and revenues from sales of Angiomax.

In August and September 2000, we received \$101.4 million in net proceeds from the sale of common stock in our initial public offering. Since our initial public offering, we have received an additional \$41.8 million in net proceeds in May 2001 from the sale of 4.0 million shares of our common stock in a private placement and \$30.9 million in net proceeds in June 2002 from the sale of 4.0 million shares of our common stock in a public offering. Prior to our initial public offering, we had received net proceeds of \$79.4 million from the private placement of equity securities, primarily redeemable convertible preferred stock, and \$19.4 million from the issuance of convertible notes and warrants.

In March 2002, we entered into a collaboration agreement with Nycomed. Under the agreement, Nycomed paid us an initial non-refundable fee of \$1.5 million and agreed to pay up to \$2.5 million in additional milestones based on regulatory approvals in Europe. In addition, Nycomed purchased 79,428 shares of our common stock for a total purchase price of approximately \$1.0 million.

In March 2002, we entered into a loan and security agreement with Comerica Bank-California. The agreement allowed us to borrow up to \$10.0 million. The agreement was terminated in August 2002.

Cash Flows. As of December 31, 2002, we had \$36.8 million in cash and cash equivalents, as compared to \$53.9 million as of December 31, 2001. The major uses of cash during 2002 include net cash used for operating activities of \$45.1 million and net cash used in investing activities of \$6.9 million, partly offset by \$34.9 million received from financing activities.

We used net cash of \$45.1 million in operating activities during 2002. This use of cash consisted of a net loss of \$45.8 million and an increase in accounts receivable of \$9.5 million and a decrease in accounts payable of \$516,000, partly offset by a decrease in inventory of \$2.4 million and increases in accrued expenses of \$2.9 million, deferred revenue of \$1.4 million, non-cash stock compensation of \$3.8 million, and depreciation of \$555,000. The increase in accounts receivable can be attributed to the higher sales levels.

During 2002, we used \$6.9 million in cash in net investing activities, which consisted principally of the purchase of available for sale securities.

Cash provided by financing activities of \$34.9 million during 2002 consisted primarily of the proceeds of the public offering of 4.0 million shares of our common stock in June 2002 which resulted in net proceeds of \$30.9 million. In addition, Nycomed purchased 79,428 shares of our common stock for a total purchase price of approximately \$1.0 million and employees purchased stock related to option exercises and our employee stock purchase plan for aggregate net proceeds to us of approximately \$3.0 million.

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Funding Requirements. We expect to devote substantial resources to our research and development efforts and to our sales, marketing and manufacturing programs associated with the commercialization of our products. Our funding requirements will depend on numerous factors including:

- whether Angiomax is commercially successful;
- the progress, level and timing of our research and development activities related to our additional clinical trials with respect to Angiomax and to our other product candidates;
- the cost and outcomes of regulatory reviews;
- the continuation or termination of third party manufacturing or sales and marketing arrangements;

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- the cost and effectiveness of our sales and marketing programs;
- the status of competitive products;
- our ability to defend and enforce our intellectual property rights; and
- the establishment of additional strategic or licensing arrangements with other companies or acquisitions.

We believe, based on our current operating plan, which includes anticipated revenues from Angiomax and interest income, and the proceeds of this offering, that our current cash, cash equivalents and available for sale securities will be sufficient to fund our operations for the foreseeable future. However, we expect to periodically assess our financing alternatives and access the capital markets opportunistically. In addition, if our existing resources are insufficient to satisfy our liquidity requirements due to slower than anticipated revenues from Angiomax or otherwise, or if we acquire additional product candidates, we may need to sell additional equity or debt securities or seek additional financing through other arrangements. Any sale of additional equity or debt securities may result in additional dilution to our stockholders, and we cannot be certain that additional public or private financing will be available in amounts or on terms acceptable to us, if at all. If we are unable to obtain this additional financing, we may be required to delay, reduce the scope of, or eliminate one or more of our planned research, development and commercialization activities, which could harm our financial condition and operating results.

CONTRACTUAL OBLIGATIONS

Our long-term contractual commitments consist of operating leases for our facilities in Parsippany, New Jersey and Cambridge, Massachusetts, which expire in January 2013 and August 2003, respectively. Future annual minimum payments under these operating leases are:

MINIMUM OPERATING LEASE OBLIGATION

| YEAR(S) | AMOUNT |
|-----------|------------|
| 2003..... | \$ 808,000 |

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| | |
|---------------------------------------|-------------|
| 2004..... | 526,000 |
| 2005..... | 492,000 |
| 2006..... | 495,000 |
| 2007..... | 503,000 |
| Later years..... | 2,689,000 |
| | ----- |
| Total operating lease obligation..... | \$5,513,000 |
| | ===== |

In addition to amounts accrued or payable as of December 31, 2002, we have commitments to make payments to UCB Bioproducts of a total of \$9.7 million during 2003 for Angiomax bulk drug substance to be produced using the Chemilog process. We also have \$1.9 million in contractual commitments for 2003 related to research and development activities.

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BUSINESS

OVERVIEW

We are a specialty pharmaceutical company with growing revenue from sales of our first product, Angiomax, a direct thrombin inhibitor used as an anticoagulant in patients undergoing coronary angioplasty. The FDA approved Angiomax for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary angioplasty in December 2000, and we began selling the product in the United States in January 2001. Our total net revenue was \$14.2 million in 2001 and \$38.3 million in 2002, generated almost entirely from sales of Angiomax in the United States.

We believe that Angiomax has the potential to become a broadly applied intravenous anticoagulant as a replacement for heparin in the treatment of arterial thrombosis. Arterial thrombosis is associated with life-threatening conditions such as ischemic heart disease, peripheral vascular disease and stroke, all of which result from decreased blood flow and diminished supply of oxygen to vital organs. In particular, we are evaluating Angiomax in clinical trials for additional uses in open vascular surgery such as CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty.

We are evaluating clevidipine as an intravenous drug for the short-term control of high blood pressure in patients undergoing cardiac surgery. We have commenced a study in patients undergoing cardiac surgery comparing clevidipine with nitroglycerin, a drug that is typically used to control high blood pressure in patients undergoing cardiac surgery, and plan to commence a Phase 3 clinical program in 2003.

Our core strategy is to help hospitals alleviate the growing pressure to treat patients more efficiently, including the demands to improve the effectiveness and safety of treatment while minimizing the cost. We implement this strategy by acquiring and developing products in late stages of their clinical development or after they have been approved for marketing. Cost of treatment in hospitals is predominantly driven by length of patient stay, while length of stay is often driven by the occurrence of treatment complications. Products that are more effective, safe and predictable, which require shorter periods of treatment or are easier to use than current products, may reduce the length of hospital stay and, as a direct result, lower total costs. We believe that products with such attributes are attractive to hospital business

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management, physicians, pharmacists and other care staff. We also believe that promising, well-developed products which fit this profile may be acquired on reasonable terms from larger pharmaceutical companies in the process of refining their own product portfolios. We may also acquire rights to such products from smaller companies seeking competent development and/or commercial collaborations in this specialized area of medicine.

We believe that our concentration on hospital care enables us to be highly competitive in terms of the products we can acquire from others, our development and regulatory processes, the information and services we provide to our customers and the level of resources we can commit to potential customers. This concentration has allowed us to develop in-depth know-how related to the practice of acute hospital care, and gain valuable insights into procurement processes, usage patterns, caregiver-preferences and the evaluation of products by our customers. We believe we can focus successfully on this specialty market without hiring a large sales force and incurring the substantial fixed overhead costs associated with such personnel and without needing to build or acquire manufacturing infrastructure.

ANGIOMAX

Overview

In December 2000, we received marketing approval from the FDA for Angiomax for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary balloon angioplasty. We began selling Angiomax in the United States in January 2001. Angiomax was approved in New Zealand in 1999 and in Canada and Israel in 2002 for indications similar to those approved by the

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FDA. We are selling Angiomax in New Zealand and Israel and expect to begin selling Angiomax in Canada in the second quarter of 2003.

We believe Angiomax, as a direct thrombin inhibitor, is a valuable replacement for heparin, the anticoagulant that historically has been used in almost all angioplasty procedures. Heparin is also used in most major cardiac and vascular surgical procedures in the United States and administered to a majority of patients treated in hospitals in the United States for acute coronary syndromes, including heart attack.

As of February 21, 2003, clinical investigators had administered Angiomax to more than 16,000 patients in clinical trials for the treatment and prevention of blood clots in a wide range of hospital applications. In clinical trials in angioplasty, the use of Angiomax compared to heparin resulted in fewer ischemic complications and fewer bleeding events, including a reduction in the need for blood transfusion. In addition, in these trials, Angiomax demonstrated that its therapeutic effect is more predictable than heparin, which enables simplified dosing.

We believe that Angiomax has the potential to become a broadly applied intravenous anticoagulant as a replacement for heparin in the treatment of arterial thrombosis. In particular, we are evaluating Angiomax in clinical trials for additional uses in open vascular surgery such as CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty.

Background

Clotting. Normally, blood loss at the site of an injury is limited by the

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formation of blood clots, in a process called coagulation. A blood clot is a collection of cross-linked strands of the protein fibrin, which is made as a result of coagulation and forms a mesh around activated platelets and red blood cells. Blood clots are formed through precisely regulated interactions among the blood vessel wall, plasma clotting factors, including thrombin and fibrinogen, and platelets. Current literature suggests that the clotting process is a series of overlapping phases in which groups of clotting factors are intertwined with platelets, red blood cells and endothelial cells that line the blood vessels. In general, clotting serves a life-saving function by reducing bleeding; however, unwanted clots in arteries can lead to heart attack, stroke or organ failure.

The trigger for the clotting process in an artery is typically a tearing or spontaneous rupture of plaque, which are deposits of cholesterol, fat and dead cells that build up under a protective layer of cells, known as endothelial cells, on a blood vessel wall. When the plaque ruptures, substances released from cells and plaque that are not normally exposed to the bloodstream come into contact with the bloodstream. This may happen without an apparent cause or may be caused as a direct result of, for example, an angioplasty procedure. This contact triggers the clotting process. In parallel interdependent processes, a small amount of the clotting factor thrombin is produced and a thin protective layer of platelets is deposited at the rupture site.

Thrombin has long been recognized as a key factor in the clotting process. Thrombin is technically a type of enzyme called a protease, like several other clotting factors. However, thrombin not only converts fibrinogen into the fibrin strands that hold a clot together, but thrombin also helps to amplify its own production by activating other clotting factors. Importantly, thrombin also provides signals, like a hormone does, to various cell types such as platelets and endothelial cells to initiate responses in coagulation, inflammation, and possibly other important physiological processes. Thrombin directly activates platelets, by producing effects through means of surface receptors on the platelets called protease-activated receptors, or PARs, that provide binding sites for the effector molecule. PARs carry a hidden message that is unmasked by the action of the protease, for example, thrombin. Activation of the PAR then transmits the signal to the platelet, which becomes activated.

In addition to being a powerful platelet activator through its action on platelets, thrombin can also recruit more platelets to the site of injury. Activated platelets not only help close the rupture, but the activated platelet's membrane becomes a docking site for other clotting factors. The clotting factors can

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assemble and much more efficiently produce very large amounts of thrombin. The thrombin produces fibrin, strands of protein that interweave and enmesh the platelets into a thrombus, or clot. The clotting factors on the platelets within the clot continue to produce large amounts of thrombin after the clot is formed, and the clot can continue to grow.

As a clot blocks the blood vessel, it may then cut off blood supply to the heart muscle, the brain or other organs. A heart attack, also known as a myocardial infarction or MI, occurs if a clot blocks blood supply to the heart muscle, and the muscle stops working either in part or completely. This may result in irreversible damage to the heart or death.

During medical procedures such as coronary angioplasty, the blood clotting process must be slowed to avoid unwanted clotting in the coronary artery and the potential growth of clots or the movement of a clot or portions of it downstream in the blood vessels to new sites.

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Anticoagulation Therapy. Anticoagulation therapy attempts to modify actions of the components in the blood system that activate clot-forming factors leading to blood clots. When the risks of clot formation cannot be avoided, or when medical procedures such as angioplasty give rise to an increased risk of clot formation, anticoagulation therapy is warranted. Anticoagulation therapy has typically involved the use of drugs to inhibit one or more components of the clotting process, thereby reducing the risk of clot formation. Anticoagulation therapy is usually started immediately after a diagnosis of blood clots, or after risk factors for clotting are identified. Because anticoagulation therapy reduces clotting, it also may cause excessive bleeding.

Current anticoagulation therapy for angioplasty focuses on the principal components of the clotting process: thrombin, platelets and fibrin.

- The actions of thrombin in the clotting process may be inhibited by direct thrombin inhibitors, such as Angiomax, which act directly on thrombin. Because thrombin activates platelets, direct thrombin inhibitors also prevent platelet clumping. The actions of thrombin in the clotting process may also be inhibited by indirect thrombin inhibitors, such as heparin, which act to turn off clotting factors and turn on natural anti-clotting factors such as antithrombin-III, or AT-III.
- The aggregation of platelets in the clotting process may be inhibited by products called platelet inhibitors, which act on different pathways leading to platelet activation, including specific enzyme pathways like the cyclo-oxygenase and the adenosine diphosphate, or ADP, pathways. Two important agents that prevent platelet activation are aspirin and a class of platelet inhibitors that can be administered orally and are referred to as thienopyridines, such as clopidogrel. The use of platelet inhibitors that block activation is considered important therapy.
- Other types of platelet inhibitors attempt to block the clumping, or aggregation of platelets by blocking surface sites, like the glycoprotein IIb/IIIa, or GP IIb/IIIa, receptor, on the platelet that allow them to attach to fibrin and each other. The GP IIb/IIIa inhibitors, although effective at inhibiting platelet aggregation, do not prevent platelet activation. In fact, many studies have found that use of these agents, especially at low levels, are associated with an increase in markers of platelet activation.
- Fibrin may be dissolved after clotting has occurred by products called fibrinolytics.

Drugs are currently used alone or in combination with other anticoagulant therapies to target one or more components of the clotting process. Because of the interdependence of clotting factors and platelets, drugs that target one or the other may have effects on the other. For example, a drug that targets thrombin may have an antiplatelet effect. However, possibly due to the critical, central role of thrombin, while anti-thrombin drugs have been used alone in angioplasty, the use of antiplatelet drugs without anti-thrombin drugs generally has not been successful.

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Disadvantages of Heparin Therapies

In the hospital environment, most patients undergoing anticoagulation therapy for the prevention and treatment of arterial and venous thrombosis receive heparin or low molecular weight heparin. In the United States, over 12

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million hospitalized patients annually receive heparin therapy. Heparin is a standard component of acute anticoagulation therapy because of the central role of thrombin in the clotting process and heparin's rapid anticoagulant effect.

Heparin's properties as an anticoagulant were discovered in 1916. It is prepared from the intestines of pigs or lungs of cows. Heparin is a complex mixture of animal-derived proteins with variable anticoagulant potencies. The anticoagulant effects of heparin on any given patient are difficult to predict because heparin binds non-specifically to human cells and circulating substances in the blood. For these and other reasons, heparin, as a non-specific, indirect thrombin inhibitor, presents a variety of clinical challenges including:

- Weak effect in clots. Because it is an indirect thrombin inhibitor, heparin is variably effective on thrombin that is bound to clots. In addition, large amounts of thrombin continue to be produced from within the clot after clot formation.
- Activation of platelets. Studies have shown that heparin enhances the clumping of platelets in unstable angina patients. Heparin activates platelets by binding to the GP IIb/IIIa receptor on the platelet surface, and has been shown to decrease the platelet inhibitory effects of GP IIb/IIIa platelet inhibitors.
- Increased risk of bleeding. Patients who receive heparin have a high incidence of bleeding. This is particularly the case with patients who are elderly, female or have low body weight. Recent clinical trials have shown that bleeding risk may also be increased when heparin is used in combination with intravenous platelet inhibitors.
- Unpredictability. A specified dose of heparin provides an unpredictable level of anticoagulation. As a result of this unpredictability, use of heparin requires close monitoring.
- Risk of clinical immune reaction. Heparin may cause the formation of antibodies, which antibodies may be associated with HIT/HITTS, which is characterized by reduced platelet counts and potentially by widespread, life-threatening blood clots.
- Diminished effect in high-risk patients. Heparin's effect may be reduced in patients who have suffered a prior heart attack and in patients with unstable angina.
- Indirect thrombin inhibition. Heparin can only bind to thrombin by first binding to AT-III which may be absent or present in insufficient amounts in some patients. AT-III deficiency can be severe and unpredictable in infants and children.

Heparin derivatives, such as low molecular weight heparins, were developed to attempt to diminish some of these disadvantages. Low molecular weight heparins are administered once or twice daily by subcutaneous injection. Although they tend to be more predictable than heparin in their effect, low molecular weight heparins exhibit similar clinical challenges to those of heparin, including a weak effect in a clot that has already formed and a comparable risk of bleeding. The effects of low molecular weight heparins are only partially reversible, making their use in surgery or in patients that may be candidates for surgery impractical.

Angiomax Advantages

Angiomax is a synthetic peptide of 20 amino acids that is a rapid-acting, direct and specific inhibitor of thrombin and is administered by intravenous injection. Angiomax is specific in that it only binds to thrombin and does not

bind to or activate any other blood factors or cells.

Angiomax was engineered based on the biochemical structure of hirudin, a natural 65-amino acid protein anticoagulant. However, the binding of Angiomax to thrombin is "naturally" reversible because thrombin slowly breaks down the Angiomax molecule, releasing it from binding, while hirudin remains

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intact and tightly bound to thrombin. This natural reversibility is associated with a reduced risk of bleeding.

Angiomax has numerous pharmacological and clinical advantages over heparin including:

- Effective in clot-bound thrombin. Angiomax, as a direct thrombin inhibitor, is equally effective on thrombin in the clot as well as thrombin circulating in the blood.
- Inhibition of platelets. Angiomax directly inhibits thrombin which also inhibits platelet activation through inhibition of platelet activating receptors, such as the PAR receptors, on the surface of platelets.
- Reduced bleeding risk. As a reversible thrombin inhibitor, Angiomax has consistently shown clinically meaningful reductions in bleeding compared to heparin.
- Predictability. As a synthetic peptide, a specified dose of Angiomax results in a predictable level of anticoagulation.
- Effective in high-risk patients. Angiomax has been shown to be effective in patients having suffered prior heart attacks and patients with acute coronary syndromes.
- Reduced incidence of thrombocytopenia. Angiomax has been shown to result in a significant reduction in thrombocytopenia, or lower platelet counts, an immunogenic disorder associated with heparin.

Use of Angiomax in Coronary Angioplasty

Coronary angioplasty has transformed the management of symptomatic arterial disease in the last 10 years. The procedure is used to restore normal blood flow in arteries that supply blood to the heart. In the year 2000, more than one million coronary angioplasty procedures with or without stenting were performed in the United States. The coronary angioplasty procedure itself increases the risk of coronary clotting, potentially leading to MI, CABG, or death.

To prevent clotting, anticoagulation therapy is routinely administered to patients undergoing angioplasty. Heparin has historically been used as an anticoagulant in virtually all patients undergoing angioplasty. In addition, platelet inhibitors such as aspirin, an ADP inhibitor such as Plavix or a GP IIb/ IIIa inhibitor are often administered to augment heparin.

Clinical Trials in Coronary Angioplasty

We invest significantly in the development of clinical data on the mode of action and clinical effects of Angiomax in procedures including coronary angioplasty and stenting.

In almost all of our investigations to date, we have compared Angiomax to

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heparin, which until relatively recently was the only injectable anticoagulant for use in coronary angioplasty, or combinations of drugs including heparin. Angiomax has been tested against heparin in eight comparative trials and found to reduce significantly the risk of arterial thrombosis and of bleeding. These data formed the basis for FDA approval in late 2000 and of our marketing programs in 2001 and 2002. In 2002, we conducted REPLACE-2 to evaluate Angiomax as the foundation anticoagulant for angioplasty within the context of modern therapeutic products and technologies, including coronary stents.

Trials in Angioplasty Performed Prior to REPLACE-2. More than 6,000 patients were studied in various clinical studies of Angiomax in coronary angioplasty prior to the REPLACE-2 trial. Based on a pooled analysis of Angiomax patient data for all of these trials, Angiomax-treated patients, as compared to heparin-treated patients, experienced, when measured seven days after treatment in the hospital:

- 43% fewer clinical events as measured by death, MI, revascularization procedures or major bleeding;
- 24% fewer ischemic events as measured by death, revascularization or MI; and

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- 63% fewer events involving major bleeding.

These pooled data have been accepted for presentation by the American College of Cardiology in March 2003.

REPLACE-2 Trial in Angioplasty. We completed patient enrollment for the REPLACE-2 trial in September 2002, only 10 months after start-up in November 2001. The trial was a randomized, double blind study involving 6,002 patients who were referred for angioplasty in 233 clinical sites in the United States and eight other countries. In November 2002, the principal investigators reported 30-day patient follow-up results of the trial.

The trial was designed to evaluate whether the use of Angiomax with provisional use of GP IIb/IIIa inhibitors provides clinical outcomes relating to rates of ischemic and bleeding events that are superior to heparin alone and the same as, or non-inferior to, the current standard of low-dose weight-adjusted heparin plus GP IIb/IIIa inhibitors. These outcomes were designed to be assessed using formal statistical tests for superiority and non-inferiority.

REPLACE-2 employed two randomized arms:

- heparin with a GP IIb/IIIa inhibitor, which was either Integrilin or ReoPro; and
- Angiomax with the provisional use of a GP IIb/IIIa inhibitor, which was either Integrilin or ReoPro, if deemed necessary by the physician during the procedure.

The trial also evaluated the Angiomax regimen against heparin alone using a historical control arm. The heparin historical control arm of the study was calculated using an average of the event rates from the EPISTENT and ESPRIT trials, which were previous angioplasty trials of other companies in which heparin alone was compared to heparin plus a GP IIb/IIIa inhibitor.

The primary objective of REPLACE-2 was to demonstrate superiority versus heparin and non-inferiority to heparin plus a GP IIb/IIIa inhibitor for the quadruple composite endpoint of death, MI, urgent revascularization or major

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bleeding. The secondary objectives of REPLACE-2 included superiority versus heparin and non-inferiority to heparin plus a GP IIb/IIIa inhibitor for a triple composite endpoint of death, MI or urgent revascularization.

Based on 30-day patient follow-up results, Angiomax met all primary and secondary objectives for the study:

- The primary quadruple composite endpoint of death, MI, urgent revascularization or major bleeding at 30 days was met:
- Angiomax was superior to heparin alone.
- Angiomax was non-inferior to heparin plus a GP IIb/IIIa inhibitor.
- The secondary triple composite endpoint of death, MI or urgent revascularization at 30 days was met:
- Angiomax was superior to heparin alone.
- Angiomax was non-inferior to heparin plus a GP IIb/IIIa inhibitor.
- The Angiomax treatment group demonstrated a significant decrease in bleeding complications and thrombocytopenia as compared to heparin plus a GP IIb/IIIa inhibitor.

7.2% of the patients in the Angiomax treatment group received a GP IIb/IIIa inhibitor on a provisional basis.

Notably, 97% of patients achieved desired anticoagulation targets with the initial dose of Angiomax versus only 88% with heparin plus a GP IIb/IIIa inhibitor, resulting in 12% of the patients with heparin plus a GP IIb/IIIa inhibitor having to receive multiple doses of heparin. The average patient duration of

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infusion was only 44 minutes with Angiomax versus 12 to 18 hours for patients treated with heparin plus a GP IIb/IIIa inhibitor, which may facilitate earlier release from the hospital for patients on Angiomax.

The study is continuing beyond these 30-day results, evaluating patient outcomes for two additional periods indicated in the study protocol: death, MI or urgent revascularization within six months following angioplasty and death within one year following angioplasty. We expect to report on these results later in 2003.

In addition to the objectives described above, the REPLACE-2 trial has a protocol-defined total hospital resource cost comparison at U.S. clinical trial sites, which is currently being analyzed, designed to evaluate whether use of Angiomax plus provisional GP IIb/IIIa inhibitors instead of the combination of heparin plus a GP IIb/IIIa inhibitor would reduce the costs of antithrombotic drug therapy and the total cost of care. We expect to report the results of this pharmacoeconomic analysis later in 2003. We expect these results to show that medical decision-makers who use Angiomax as part of a safe and effective anticoagulant therapy will reduce the cost of treating an angioplasty patient not only by reducing pharmacy acquisition costs, but also by reducing bleeding and other complications, and reducing the need for other drugs and devices such as closure devices. We believe the reduction of a hospital's cost of treating an angioplasty patient is significant because many U.S. hospitals receive a fixed reimbursement amount for the angioplasties they perform, which amount is not based on the actual expenses the hospital incurs.

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We estimate, based on REPLACE-2 30-day follow-up dosing and administration data for each of the treatment arms, using wholesale drug acquisition costs, a difference of more than \$400 per patient in pharmacy acquisition cost in favor of the Angiomax regimen, after taking into account the provisional use of GP IIb/IIIa inhibitors, versus the heparin plus a GP IIb/IIIa inhibitor regimen.

We intend to submit a supplement for FDA review to update the product labeling to include the previously reported REPLACE-2 data. In addition, we will use the REPLACE-2 results as the basis for regulatory updates and submissions in international markets, including Europe.

Angiomax Commercial Operations in Coronary Angioplasty. We are selling Angiomax in the United States with a hospital sales force of 86 people as of February 21, 2003. We expect to increase the size of this sales force to 97 in early 2003 to meet anticipated increasing customer demands. Our sales force has been configured to target, as potential hospital customers, the approximately 700 hospitals with cardiac catheterization laboratories in the United States that perform 500 or more coronary angioplasties per year. Our development, medical, marketing and sales professionals are qualified and trained to deal with complex scientific, treatment, pharmacy and economic questions on a day-to-day basis.

We are focusing our Angiomax marketing efforts on interventional cardiologists and other key clinical decision-makers at these cardiac catheterization laboratories. We use educational programs, preceptorships in leading medical centers, publications, and other targeted marketing techniques in efforts to increase Angiomax sales. We believe our ability to deliver relevant, advanced and reliable educational programs to our customers and our concentrated customer base provides us with significant market presence even in the highly competitive sub-segments of the hospital market such as cardiology. We work collaboratively with a number of prominent hospitals and teaching institutions around the United States who share our mission to educate our customers in the appropriate use of our products as part of modern practice and who provide independent guidance to their colleagues.

We sell Angiomax primarily to a limited number of national medical and pharmaceutical distributors and wholesalers with distribution centers located throughout the United States, including AmerisourceBergen Drug Company, McKesson Corporation and Cardinal Health, Inc., each of which accounted for more than 10% of our revenues for the year ended December 31, 2002. These wholesalers and distributors then sell to hospitals. If Angiomax is approved for use in other indications, we intend to market Angiomax for these indications in the United States by supplementing our commercial organization, or by collaborating with other health care companies.

We market, sell and distribute Angiomax in New Zealand and Israel through distribution partners, and we expect to begin selling Angiomax in Canada in the second quarter of 2003 through a distribution

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partner. In addition, we have agreements with other distribution partners for future sales of Angiomax that cover more than 56 additional countries, including an exclusive collaboration with Nycomed Danmark A/S for the distribution and promotion of Angiomax in 35 countries, including 12 countries in the European Union. We have not received approval to market Angiomax in any of these countries.

Angiomax Potential Applications

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We believe that Angiomax is the leading replacement for heparin in angioplasty and can become the leading replacement for heparin in the treatment of arterial thrombosis. In particular, we are evaluating Angiomax for additional uses in open vascular surgery such as CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty. If we are able to obtain regulatory approval in these additional indications, we believe that Angiomax could be marketed to customers across a spectrum of hospital-based acute cardiovascular care--in coronary angioplasty, vascular surgery and urgent medical treatment.

At present, we:

- have recently completed enrollment in a Phase 3 trial program studying the use of Angiomax in the treatment of HIT/HITTS patients undergoing coronary angioplasty, the results of which we expect to report in 2003;
- are conducting a Phase 2/3 trial program studying the use of Angiomax as an anticoagulant in patients undergoing CABG, with and without the use of a bypass pump, and in HIT/HITTS patients undergoing CABG, with and without the use of a bypass pump;
- plan to start a randomized Phase 3 trial program to study the use of Angiomax in patients presenting to the emergency department with acute coronary syndromes who may be medically managed or ultimately treated in the catheterization laboratory or operating room;
- are conducting a Phase 2 trial program to study the use of Angiomax in neonates and infants up to six months old with active thrombosis; and
- are supporting a number of investigations, including clinical studies, of Angiomax in patients undergoing percutaneous peripheral angioplasties.

Use of Angiomax in Vascular Surgery. Heparin is used widely as an anticoagulant in major surgical procedures. Many surgery patients, however, develop antibodies to heparin as a result of their exposure to heparin. Heparin antibody positivity is the major marker for the development of HIT/HITTS. Even absent the clinical condition of HIT/HITTS, the presence of heparin antibodies alone has been associated with an increased risk of death or major complications after CABG. In addition, the effects of heparin are routinely reversed with protamine, the use of which has been associated with an allergic reaction and a subsequent increase in the risk of death or major complications.

Clinical publications have cited several different rates of CABG patients who are heparin antibody positive, ranging from 25% to 50%. Clinical data indicate that heparin antibody positive patients have a significant increase in major complications of CABG, resulting in increased hospital stay or death. Based on hospital reimbursement data, in the United States in 2000 there were nearly 400,000 CABG procedures performed.

Surgeons conduct CABG either on-pump or off-pump. On-pump CABG is conducted with the use of a cardiac pulmonary bypass machine, a device that pumps the patient's blood while the heart is stopped and the surgery is conducted. For off-pump CABG, physicians slow the heartbeat and stop the heart only briefly during the surgery, and therefore do not use a bypass machine.

We are conducting Phase 3 studies in both on- and off-pump CABG, and assuming positive results, we intend to submit the data from these studies to the FDA for consideration of marketing Angiomax in patients, including patients who are heparin antibody positive, undergoing CABG. We have completed a 100

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patient Phase 2 trial of Angiomax comparing Angiomax to heparin in patients undergoing off-pump

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CABG. Patients in the trial who received Angiomax experienced more rapid and consistent anticoagulation, a similar level of bleeding and significant improvement in graft patency. We expect the principal investigator to publish the Phase 2 data in a medical journal in 2003.

Use of Angiomax in Urgent Medical Treatment. Ischemic heart disease patients are subject to chest pain that results from a range of conditions, from unstable angina to acute myocardial infarction. The severe onset of these cardiac conditions is collectively referred to as acute coronary syndromes, or ACS. Some ACS patients enter the hospital by way of the emergency department and are triaged to be medically managed with pharmacotherapy and observation, scheduled for an angioplasty procedure, and/or scheduled for CABG.

Unstable angina is a condition in which patients experience the new onset of severe chest pain, increasingly frequent chest pain or chest pain that occurs while they are resting. Unstable angina is caused most often by a rupture of plaque on an arterial wall that results in clot formation and ultimately decreases coronary blood flow but does not cause complete blockage of the artery. Unstable angina is often medically managed in the emergency department with anticoagulation therapy that may include aspirin, indirect thrombin inhibitors such as heparin or low molecular weight heparin and GP IIb/IIIa inhibitors. Many unstable angina patients also undergo coronary angioplasty or CABG depending on the severity of the disease.

AMI is a leading cause of death in ischemic heart disease patients. AMI occurs when coronary arteries, which supply blood to the heart, become completely blocked by a clot. AMI patients are routinely treated with heparin, with and without fibrinolytics, in combination with GP IIb/IIIa inhibitors. AMI patients are increasingly undergoing angioplasty as a primary treatment to unblock clogged arteries.

Based on hospital reimbursement data, in the United States in 2000 there were approximately 1,882,000 patients hospitalized for acute coronary syndromes, including 900,000 unstable angina patients and 982,000 patients with heart attacks of varying severity.

Angiomax has been the subject of five Phase 2 trials in patients with unstable angina or who had experienced a less serious form of MI known as non Q-wave MI. These trials enrolled a total of 630 patients, of whom 553 received various doses of Angiomax. These studies have demonstrated that Angiomax is an anticoagulant that can be administered safely in patients with unstable angina.

The largest of these Phase 2 trials was a multicenter, double blind, placebo-controlled and randomized study in 410 patients with unstable angina or who had experienced non Q-wave MI. The trial compared the effect of three active dose levels and one placebo dose level of Angiomax with respect to death, MI, recurrent angina and major bleeding. Angiomax demonstrated a significant correlation between dose and anticoagulant effect.

In comparison to 160 patients treated with placebo doses in the trial, 250 patients treated with active doses of Angiomax experienced:

- a 68% reduction in death or MI in the hospital; and
- a 59% reduction in death or MI after six weeks.

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The company from which we licensed Angiomax, Biogen, commenced a Phase 3 trial in 1994, the TIMI-8 trial, in unstable angina patients comparing Angiomax to heparin. The trial was discontinued after enrolling 133 patients when Biogen discontinued the Angiomax development program. Analysis of the data from the discontinued study showed the combined incidence of death, MI, or major bleeding reported in hospital within fourteen days of admission was 2.9% in Angiomax patients and 13.8% in heparin patients.

In 2001, we completed a 17,000 patient randomized Phase 3 clinical trial in AMI in 46 countries. In this Phase 3 trial, which we refer to as the HERO-2 trial, patients with AMI who were candidates for thrombolytic treatment with streptokinase received Angiomax or heparin. All patients in the trial also received aspirin and Streptase, a fibrinolytic. Clinical results were assessed 30 days after treatment. The trial assessed second heart attacks, or reinfarction, based on both adjudication by a panel of experts and

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direct observation by the sites in the trial. In comparison to heparin-treated patients in the trials, Angiomax-treated patients experienced:

- no significant difference in mortality, the primary endpoint of the trial;
- 22% fewer second heart attacks; and
- no significant difference in hemorrhagic stroke and transfusions.

The results of the HERO-2 trial were published in The Lancet in December 2001.

Use of Angiomax in Other Indications

Angiomax has been the subject of a number of additional clinical trials for other indications.

HIT/HITTS. Approximately one to three percent of patients who have received heparin experience HIT/HITTS. The underlying mechanism for the condition appears to be an immunological response to a complex formed by heparin and another factor, resulting in thrombocytopenia, and in some cases in arterial or venous clotting, which may result in death or the need for limb amputation. In order to treat a HIT/HITTS patient, an alternative anticoagulant is necessary because further administration of heparin is not possible.

Prior to 1997, Angiomax was administered to a total of 39 HIT/HITTS patients undergoing angioplasty requiring anticoagulation for invasive coronary procedures or treatment of thrombosis. For those patients undergoing angioplasty and other procedures, Angiomax provided adequate anticoagulation, was well-tolerated and rarely resulted in bleeding complications. In the approval letter for Angiomax, the FDA required us to complete our trial designed to evaluate the use of Angiomax for treatment of HIT/HITTS patients undergoing angioplasty. That trial has recently completed enrollment and we expect to report the results of the trial in the second quarter of 2003.

We are also conducting a Phase 3 trial program studying the use of Angiomax as an anticoagulant in HIT/HITTS patients undergoing CABG, with and without the use of a bypass pump.

Neonates and Infants (AT-III deficiency). Heparin can only bind to thrombin by first binding to an anti-clotting factor called AT-III, which may be absent or present in insufficient amounts in some patients. AT-III deficiency is

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often severe or unpredictable in infants and children, making the treatment and prevention of thrombosis especially difficult. We have commenced a Phase 2 trial program in neonates and infants up to six months old requiring intravenous anticoagulation due to active thrombosis.

Regulatory Status

In December 2000, we received approval from the FDA for the use of Angiomax in combination with aspirin in patients with unstable angina undergoing coronary angioplasty. In connection with this approval, the FDA required us to complete our ongoing trial evaluating the use of Angiomax for the treatment of HIT/HITTS patients undergoing angioplasty. Patient enrollment for this trial has been completed and, assuming the results are positive, we expect to submit the results to the FDA in 2003 for expanded labeling indications. We have received approval to market Angiomax stored at controlled room temperature which allows stocking of Angiomax in cardiac catheterization laboratories and other parts of a hospital where the issue of refrigeration was problematic.

We intend to submit a supplement for FDA review to update the product labeling to include the 30-day REPLACE-2 data.

With our European partner, Nycomed, we plan to submit in 2003 an MAA to the EMEA for Angiomax for use in patients undergoing coronary angioplasty. In February 1998, an MAA was submitted that we subsequently withdrew. The withdrawal followed extensive discussions with the Committee of Proprietary Medicinal Products, or the CPMP, relating to the relevance of the clinical data presented to EMEA to then current European medical practice. We believe that the results of the REPLACE-2 program address the issues raised by CPMP.

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Angiomax was approved in New Zealand in September 1999 for use in the treatment of patients undergoing coronary angioplasty. Angiomax was approved in Canada in October 2002 and Israel in June 2002 for use in unstable angina patients undergoing coronary angioplasty. We plan to file applications for marketing authorization in several Latin American countries including Argentina, Brazil, Mexico and Venezuela.

CLEVIDIPINE

In March 2002, we entered into a study and exclusive option agreement with AstraZeneca relating to the further study, licensing, development and commercialization of clevidipine, an intravenous compound for the short-term control of high blood pressure in patients undergoing cardiac surgery. Blood pressure control is important in patients undergoing surgery or other interventional procedures in a hospital. These patients are often treated with multiple medications, which may increase the duration of the patients' stay in the intensive care unit. We plan to commence Phase 3 clinical trials in 2003 in patients undergoing cardiac surgery to investigate the potential of clevidipine to simplify and improve the treatment of these patients.

Clevidipine belongs to a well-known class of drugs called calcium channel blockers, which are used to control high blood pressure. Clevidipine acts by selectively relaxing the smooth muscle cells that line small arteries, resulting in widening of the artery opening and reduction of blood pressure within the artery. Unlike some other blood pressure reducing agents, including some other calcium channel blockers, clevidipine does not appear, based on animal studies, to have effects on the coronary arteries or the veins, and has not been associated with quickening of the heart rate in anesthetized patients. Moreover, clevidipine has been shown in clinical trials to improve the pumping performance of the heart.

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Prior to our agreement with AstraZeneca, AstraZeneca conducted Phase 2 clinical trials of clevidipine. These clinical trials demonstrated that clevidipine acts to reduce blood pressure rapidly after intravenous infusion. Clevidipine is metabolized rapidly by enzymes in the blood, which results in the drug being cleared from the blood stream in a short period of time. Therefore, the effects of clevidipine are short-lived, and in clinical trials it has been possible to demonstrate reductions in blood pressure that are dose-dependent and that cease rapidly after stopping clevidipine infusions.

We believe that attributes of clevidipine demonstrated in clinical trials to date, namely rapid, titratable onset of effect on blood pressure, simple preparation and administration, arterial selectivity and rapid metabolism and elimination, could potentially benefit patients with high blood pressure undergoing surgical procedures and patients with severely elevated blood pressure that requires rapid reduction.

We have commenced a study in patients undergoing cardiac surgery comparing clevidipine with nitroglycerin, a drug that is typically used to control high blood pressure in patients undergoing cardiac surgery, and plan to commence a Phase 3 program in 2003. We believe that clevidipine can be efficiently sold by our U.S. sales force to hospital customers, including Angiomax customers, when and if clevidipine is approved for sale by the FDA.

CTV-05

In 1999, we acquired from GyneLogix, Inc. exclusive worldwide rights to CTV-05, a strain of bacteria under clinical investigation for a broad range of applications in the areas of gynecological and reproductive health. We entered into a clinical trial agreement with the National Institutes of Allergy and Infectious Diseases, a division of the National Institutes of Health, to conduct a Phase 2 trial of CTV-05 for the treatment of bacterial vaginosis.

In the Phase 2 safety and efficacy trial, the results of which were announced in April 2002, treatment with CTV-05 did not improve clinical cure rates at 30 days, the primary endpoint of the trial. Based on that result, we determined not to make further expenditures related to CTV-05.

In December 2002, we sublicensed our rights to develop CTV-05 to Osel, Inc. We believe that this arrangement will allow us to participate financially in the success of CTV-05 if Osel is successful in

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developing this potentially beneficial bacteria, while at the same time minimizing our expenditures and allowing us to focus on other opportunities more directly related to our core goals.

IS-159

In 1998, we acquired from Immunotech S.A. exclusive worldwide rights to IS-159, a selective chemical that reacts with receptors found on cerebral blood vessels and nerve terminals. Having determined not to devote further resources to development of IS-159, we terminated our license of IS-159 in January 2003.

PRODUCT ACQUISITION STRATEGY

We have assembled a management team with significant experience in drug development and in drug product launches and commercialization.

We plan to continue to seek to acquire and develop late-stage product

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candidates or products approved for marketing that help alleviate the growing pressures on U.S. hospitals to treat patients more efficiently. With regard to product candidates, we look for an anticipated time to market of four years or less and existing clinical data which provides reasonable evidence of safety and efficacy, together with the potential to reduce a patient's hospital stay. In addition, we aim to acquire approved products that can be marketed in hospitals by our commercial organization. In making our acquisition decisions, we attempt to achieve high investment returns by:

- understanding the market opportunity and potential cost savings for initially-targeted uses of the drug;
- assessing the investment and development programs that will be necessary to achieve a marketable product profile in these initial uses; and
- attempting to structure the design of our development programs to obtain critical information relating to the clinical and economic performance of the product early in the development process, so that we can make key development decisions.

MANUFACTURING

We do not build or operate manufacturing facilities but instead contract for manufacturing development and/or commercial supply.

Angiomax

In December 1999, we entered into a commercial development and supply agreement with UCB Bioproducts for the development and supply of Angiomax bulk drug substance. All Angiomax bulk drug substance used to date has been produced by UCB Bioproducts at its facility by means of a chemical synthesis process. Using this validated manufacturing process, UCB Bioproducts has completed the manufacture of bulk drug substance to meet our anticipated commercial supply requirements through the third quarter of 2003. We do not currently intend to purchase any additional product manufactured using this process.

Together with UCB Bioproducts, we have developed a second-generation chemical synthesis process to improve the economics of manufacturing Angiomax bulk drug substance. This process, which must be approved by the FDA before it can be used, is known as the Chemilog process and involves limited changes to the early manufacturing steps of our current process in order to improve process economics. We expect the Chemilog process to produce material that is chemically equivalent to that produced using the current process. UCB Bioproducts has completed development of the Chemilog process and has manufactured validation and production batches, which have been submitted to the FDA for approval. We received approvable letters from the FDA on March 14, 2002 and December 12, 2002. In August 2002, we responded to the March 2002 approvable letter. In the December 2002 approvable letter to us and in a

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corresponding letter to UCB Bioproducts, the FDA requested additional data. In February 2003, we submitted what we believe to be the additional data requested by the FDA from us. Concurrently, UCB Bioproducts submitted what we believe to be the additional data requested by the FDA from UCB Bioproducts. Subject to receipt of FDA approval, we expect to sell Angiomax produced using the Chemilog process in the third or fourth quarter of 2003.

We have agreed that, assuming successful development and regulatory approval of the Chemilog process, we would purchase a substantial portion of our

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Angiomax bulk drug substance exclusively from UCB Bioproducts at agreed upon prices for a period of seven years from the date of the first commercial sale of Angiomax produced under the Chemilog process. Following the expiration of the agreement, which automatically renews for consecutive three year periods unless either party provides notice of non-renewal within one year prior to the expiration of the initial term or any renewal term, or if we terminate the agreement prior to its expiration, UCB Bioproducts has agreed to transfer the development technology to us. We may only terminate the agreement prior to its expiration in the event of a material breach by UCB Bioproducts. If we engage a third party to manufacture Angiomax for us using this technology during the first ten years following the date of the first commercial sale of Angiomax produced under the Chemilog process, we will be obligated to pay UCB Bioproducts a royalty based on the amount paid by us to the third-party manufacturer.

We have developed reproducible analytical methods and processes for the fill-finish of Angiomax drug product by Ben Venue Laboratories. Ben Venue Laboratories has carried out all of our Angiomax fill-finish activities.

Clevidipine

Astra Production Chemicals has manufactured all clevidipine bulk drug which, after testing and release by Astra Hassle, has been used in clinical trials. Both Astra Production Chemicals and Astra Hassle are divisions of AstraZeneca. The manufacturing process for bulk drug is currently being transferred to PharmEco, a Johnson Matthey Company, for scale up and manufacture for Phase 3 clinical trials and commercial supplies. Fresenius Kabi L.P., using its formulation technology, has manufactured all finished drug product and has also carried out release testing and clinical packaging.

COMPETITION

The development and commercialization of new drugs is competitive, and we face competition from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Our competitors may develop or license products or other novel technologies that are more effective, safer or less costly than any that have been or are being developed by us, or may obtain FDA approval for their products more rapidly than we may obtain approval for ours.

Due to the incidence and severity of cardiovascular diseases, the market for anticoagulant therapies is large and competition is intense. We are evaluating Angiomax for additional uses in open vascular surgery such as CABG, in medical conditions that require urgent treatment such as unstable angina, in patients with heparin allergy, in children and in peripheral angioplasty. There are a number of anticoagulant therapies currently on the market, awaiting regulatory approval or in development for these uses.

In general, anticoagulant drugs may currently be classified into four groups according to their interaction with clotting mechanisms.

Direct thrombin inhibitors

Direct thrombin inhibitors act directly on thrombin, inhibiting the action of thrombin in the clotting process. Because thrombin activates platelets, direct thrombin inhibitors also prevent platelet aggregation. Direct thrombin inhibitors include Angiomax, Refludan from Berlex Laboratories and Argatroban from GlaxoSmithKline, Texas Biotechnology Corporation and Mitsubishi Chemical Corp. Both Refludan and

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Argatroban are approved for use in the treatment of patients with HIT/HITTS. Argatroban is also approved for use in patients with HIT/HITTS undergoing angioplasty.

Indirect thrombin inhibitors

Heparin and low molecular weight heparins act by first binding to AT-III. Heparin is manufactured and distributed by a number of companies as a generic product. Low molecular weight heparin products include Lovenox from Aventis Pharmaceuticals, Inc. and Fragmin from Pharmacia Corporation and The Upjohn Company. Very short molecules of heparin, called pentasaccharide sequences, include Arixtra from Sanofi-Synthelabo Inc. Heparin is widely used in patients with ischemic heart disease. Low molecular weight heparins have been approved for use in the treatment of patients with unstable angina and are being developed for use in angioplasty and vascular surgery. Arixtra has been approved for use in the treatment and prevention of deep vein thrombosis and is being developed for arterial thrombosis.

Platelet inhibitors

Platelet inhibitors, such as GP IIB/IIIa inhibitors, block the aggregation of platelets by blocking surface sites on the platelets that allow the platelets to attach to fibrin and to each other. GP IIB/IIIa inhibitors include ReoPro from Eli Lilly and Company and Johnson & Johnson/Centocor, Inc., Integrilin from Millennium Pharmaceuticals, Inc. and Schering-Plough Corporation, and Aggrastat from Merck & Co., Inc. ReoPro is approved and marketed for angioplasty in a broad range of patients. Integrilin is approved and marketed for angioplasty and for the management of acute coronary syndromes. Aggrastat is approved for the management of acute coronary syndromes.

Fibrinolytics

Fibrinolytics, or thrombolytics, dissolve fibrin in clots that have already formed. Fibrinolytics include Streptase from Aventis, Retevase from Johnson & Johnson/Centocor, TNKase from Genentech, Inc., and Abbokinase from Abbott Laboratories. These products are approved for use in the treatment of AMI, stroke and/or peripheral vascular arterial blockages.

We position Angiomax as an alternative to heparin as baseline anticoagulation therapy for use in patients with arterial thrombosis. In this regard, we expect Angiomax to be used with aspirin alone or in conjunction with other platelet inhibitors or fibrinolytic drugs and to compete with heparin and the low molecular weight heparin products.

In addition, although platelet inhibitors and fibrinolytic drugs may be complementary to Angiomax, Angiomax may compete with platelet inhibitors and fibrinolytic drugs for the use of hospital financial resources. For example, many U.S. hospitals receive a fixed reimbursement amount per procedure for the angioplasties and other treatment therapies they perform. Because this amount is not based on the actual expenses the hospital incurs, hospitals may be forced to use either Angiomax or a platelet inhibitor or fibrinolytic drugs but not necessarily several of the drugs together.

In each case, we will compete with other anticoagulant drugs on the basis of efficacy, safety, ease of administration and economic value.

We face potential competition from products that currently are in clinical development. One such potential competitor is an oral indirect thrombin inhibitor, Exanta, for which AstraZeneca is conducting a Phase 3 development study for use in the prevention of deep venous thrombosis after orthopedic surgery. In addition, development studies of Exanta are ongoing in the prevention of stroke in patients with atrial fibrillation. We believe that

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Exanta's use in these indications will not have an effect upon our planned positioning for Angiomax.

The acquisition or licensing of pharmaceutical products is a competitive area, and a number of more established companies, which have acknowledged strategies to license or acquire products, may have competitive advantages as may emerging companies taking similar or different approaches to product

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acquisition. These established companies may have a competitive advantage over us due to their size, cash flows and institutional experience.

Many of our competitors will have substantially greater financial, technical and human resources than we have. Additional mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances made in the commercial applicability of technologies and greater availability of capital for investment in these fields. Our success will be based in part on our ability to build and actively manage a portfolio of drugs that addresses unmet medical needs and creates value in patient therapy.

RESEARCH AND DEVELOPMENT

Company-sponsored research and development expenses totaled \$38.0 million in 2002, \$32.8 million in 2001 and \$39.6 million in 2000. The funding for Angiomax has represented and will continue to represent a significant portion of our research and development spending.

PATENTS, PROPRIETARY RIGHTS AND LICENSES

Our success will depend in part on our ability to protect the products we acquire or license by obtaining and maintaining patent protection both in the United States and in other countries. We rely upon trade secrets, know-how, continuing technological innovations, contractual restrictions and licensing opportunities to develop and maintain our competitive position. We plan to prosecute and defend any patents or patent applications we acquire or license, as well as any proprietary technology.

In all, as of February 21, 2003, we exclusively licensed nine issued United States patents and a broadly filed portfolio of corresponding foreign patents and patent applications. We have not yet filed any independent patent applications. The U.S. patents licensed by us are currently set to expire at various dates ranging from March 2010, in the case of the principal patent relating to Angiomax, to April 2017.

We have exclusively licensed from Biogen patents and applications for patents covering Angiomax and Angiomax analogs and other novel anticoagulants as compositions of matter, and processes for using Angiomax and Angiomax analogs and other novel anticoagulants. We are responsible for prosecuting and maintaining patents and patent applications relating to Angiomax. Under an exclusive option agreement, we may license exclusively from AstraZeneca, except in Japan, patents and patent applications covering formulations and uses of clevidipine, a compound used to control blood pressure. AstraZeneca would prosecute and maintain any patents and patent applications that we license relating to clevidipine, and we would reimburse AstraZeneca for expenses it incurs in connection with the prosecution and maintenance of the patents or patent applications. We have exclusively licensed patents and applications relating to CTV-05 from GyneLogix. Subsequently, we licensed our CTV-05 rights to Osel on an exclusive basis. Osel has assumed our obligation to prosecute and maintain the related patents and patent applications.

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The patent positions of pharmaceutical and biotechnology firms like us can be uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued. Consequently, we do not know whether any of the applications we acquire or license will result in the issuance of patents or, if any patents are issued, whether they will provide significant proprietary protection or will be challenged, circumvented or invalidated. Because unissued U.S. patent applications filed prior to November 29, 2000 and patent applications filed within the last 18 months are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office to determine priority of invention, or in opposition proceedings in a foreign patent office, either of which could result in substantial cost to us, even if the eventual outcome is favorable to us. There can be no assurance that the patents, if issued, would be held valid by a court of competent jurisdiction. An adverse outcome could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using such technology.

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The development of anticoagulants is intensely competitive. A number of pharmaceutical companies, biotechnology companies, universities and research institutions have filed patent applications or received patents in this field. Some of these applications could be competitive with applications we have acquired or licensed, or could conflict in certain respects with claims made under such applications. Such conflict could result in a significant reduction of the coverage of the patents we have acquired or licensed, if issued, which would have a material adverse effect on our business, financial condition and results of operations. In addition, if patents are issued to other companies that contain competitive or conflicting claims and such claims are ultimately determined to be valid, no assurance can be given that we would be able to obtain licenses to these patents at a reasonable cost, or develop or obtain alternative technology.

We also rely on trade secret protection for our confidential and proprietary information. No assurance can be given that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technology, or that we can meaningfully protect our trade secrets. We have a number of trademarks that we consider important to our business. These trademarks are protected by registration in the United States and other countries in which our products are marketed.

It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual shall be our exclusive property. There can be no assurance, however, that these agreements will provide meaningful protection or adequate remedies for the our trade secrets in the event of unauthorized use or disclosure of such information

LICENSE AGREEMENTS

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Biogen, Inc.

In March 1997, we entered into an agreement with Biogen for the license of the anticoagulant pharmaceutical bivalirudin, which we have developed as Angiomax. Under the terms of the agreement, we acquired exclusive worldwide rights to the technology, patents, trademarks, inventories and know-how related to Angiomax. In exchange for the license, we paid \$2.0 million on the closing date and are obligated to pay up to an additional \$8.0 million upon reaching certain Angiomax sales milestones, which are the first commercial sales of Angiomax for the treatment of AMI in the United States and Europe. In addition, we are obligated to pay royalties on future sales of Angiomax and on any sublicense royalties on a country-by-country basis earned until the later of (1) 12 years after the date of the first commercial sales of the product in a country or (2) the date on which the product or its manufacture, use or sale is no longer covered by a valid claim of the licensed patent rights in such country. Under the terms of the agreement, the royalty rate due to Biogen on sales increases with growth in annual sales of Angiomax. The agreement also stipulates that we use commercially reasonable efforts to meet certain milestones related to the development and commercialization of Angiomax, including expending at least \$20 million for certain developmental and commercialization activities, which we met in 1998. The license and rights under the agreement remain in force until our obligation to pay royalties ceases. Either party may terminate the agreement for material breach by the other party, if the material breach is not cured within 90 days after written notice. In addition, we may terminate the agreement for any reason upon 90 days prior written notice. Through February 14, 2003, we have paid a total of approximately \$3.9 million in royalties relating to Angiomax under our agreement with Biogen.

AstraZeneca PLC

In March 2002, we entered into a study and exclusive option agreement with AstraZeneca relating to the further study, licensing, development and commercialization of the intravenous blood pressure control

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pharmaceutical, clevidipine. Under the terms of the agreement, we agreed to conduct a pilot study of clevidipine, which we have begun. The agreement provides that upon the conclusion of the pilot study within 15 months of the date AstraZeneca provided samples of clevidipine to us, we may acquire, and if the results of the pilot study meet or exceed a benchmark set forth in the agreement AstraZeneca may require us to acquire, exclusive worldwide rights (except for Japan) to the know-how, patents and trademarks relating to clevidipine. We believe that we will complete the pilot study by the end of the 15-month period. If we do not complete the pilot study by the end of such period, AstraZeneca may have the right to terminate the agreement. If we license the product, we plan to develop clevidipine as a short acting blood pressure control agent for use in hospital setting. In exchange for the license we would pay \$1.0 million upon entering into the license and up to an additional \$5.0 million upon reaching certain regulatory milestones. In addition, we will be obligated to pay royalties on a country-by-country basis on future annual sales of clevidipine, and on any sublicense royalties earned, until the later of (1) the duration of the licensed patent rights which are necessary to manufacture, use or sell clevidipine in a country or (2) ten years from our first commercial sale of clevidipine in such country. The licenses and rights under the agreement remain in force until we cease selling clevidipine in any country or the agreement is otherwise terminated. We may terminate the agreement upon 30 days written notice, unless AstraZeneca, within 20 days of having received our notice, requests that we enter into good faith discussions to redress our concerns. If we cannot reach a mutually agreeable solution with AstraZeneca within three months of the commencement of such discussions, we may then

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terminate the agreement upon 90 days written notice. Either party may terminate the agreement for material breach upon 60 days prior written notice, if the breach is not cured within such 60 days.

GOVERNMENT REGULATION

Government authorities in the United States and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing of our products. In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, and, in the case of biologics, also under the Public Health Service Act, and implementing regulations. Failure to comply with the applicable U.S. requirements may subject us to administrative or judicial sanctions, such as a refusal by the FDA to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, and/or criminal prosecution.

The steps required before a drug may be marketed in the United States include:

- pre-clinical laboratory tests, animal studies and formulation studies;
- submission to the FDA of an investigational new drug exemption, or IND, for human clinical testing, which must become effective before human clinical trials may begin;
- adequate and well-controlled clinical trials to establish the safety and efficacy of the drug for each indication;
- submission to the FDA of a new drug application, or NDA, or biologics license application, or BLA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current good manufacturing practices, or cGMP; and
- FDA review and approval of the NDA or BLA.

Pre-clinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. The results of the pre-clinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about issues such as the conduct of the trials

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as outlined in the IND. In such a case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. Submission of an IND does not necessarily result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified investigators. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the investigational new drug exemption.

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Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Each trial must be reviewed and approved by an independent Institutional Review Board before it can begin. Phase 1 usually involves the initial introduction of the investigational drug into people to evaluate its safety, dosage tolerance, pharmacodynamics, and, if possible, to gain an early indication of its effectiveness. Phase 2 usually involves trials in a limited patient population to:

- evaluate dosage tolerance and appropriate dosage;
- identify possible adverse effects and safety risks; and
- evaluate preliminarily the efficacy of the drug for specific indications.

Phase 3 trials usually further evaluate clinical efficacy and test further for safety by using the drug in its final form in an expanded patient population. We cannot guarantee that Phase 1, Phase 2 or Phase 3 testing will be completed successfully within any specified period of time, if at all. Furthermore, we or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

Assuming successful completion of the required clinical testing, the results of the preclinical studies and of the clinical studies, together with other detailed information, including information on the manufacture and composition of the drug, are submitted to the FDA in the form of an NDA or BLA requesting approval to market the product for one or more indications. Before approving an application, the FDA usually will inspect the facility or the facilities at which the drug is manufactured, and will not approve the product unless cGMP compliance is satisfactory. If the FDA determines the application and the manufacturing facilities are acceptable, the FDA will issue an approval letter. If the FDA determines the application or manufacturing facilities are not acceptable, the FDA will outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. After approval, certain changes to the approved product, such as adding new indications, manufacturing changes, or additional labeling claims are subject to further FDA review and approval. The testing and approval process requires substantial time, effort and financial resources, and we cannot be sure that any approval will be granted on a timely basis, if at all.

In December 2000, we received marketing approval from the FDA for Angiomax for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary balloon angioplasty.

After regulatory approval of a product is obtained, we are required to comply with a number of post-approval requirements. For example, as a condition of approval of an application, the FDA may require postmarketing testing and surveillance to monitor the drug's safety or efficacy. In the case of Angiomax, the FDA required us to complete our 50 patient trial designed to evaluate the use of Angiomax for treatment of HIT/HITTS patients who need coronary angioplasty.

In addition, holders of an approved NDA or BLA are required to report certain adverse reactions and production problems, if any, to the FDA, and to comply with certain requirements concerning advertising and promotional labeling for their products. Also, quality control and manufacturing procedures must continue to conform to cGMP after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, manufacturers must continue to expend time, money, and

effort in the area of production and quality control to maintain compliance with current good manufacturing practices and other aspects of regulatory compliance.

We use and will continue to use third-party manufacturers to produce our products in clinical and commercial quantities, and we cannot be sure that future FDA inspections will not identify compliance issues at our facilities or at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of problems with a product may result in restrictions on a product, manufacturer, or holder of an approved NDA or BLA, including withdrawal of the product from the market. Also, new government requirements may be established that could delay or prevent regulatory approval of our products under development.

We are also subject to foreign regulatory requirements governing human clinical trials and marketing approval for pharmaceutical products which we sell outside the United States. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country. Whether or not we obtain FDA approval, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before manufacturing or marketing the product in those countries. The approval process varies from country to country and the time required for these approvals may differ substantially from that required for FDA approval. Clinical trials in one country may not be accepted by other countries, and approval in one country may not result in approval in any other country. For clinical trials conducted outside the United States, the clinical stages generally are comparable to the phases of clinical development established by the FDA.

EMPLOYEES

We believe that our success will depend greatly on our ability to identify, attract and retain capable employees. We have assembled a management team with significant experience in drug development and commercialization.

As of February 21, 2003, we employed 147 persons. Our employees are not represented by any collective bargaining unit, and we believe our relations with our employees are good.

FACILITIES

We entered into a lease for approximately 17,000 square feet of office space in Parsippany, New Jersey that we plan to occupy in March 2003, with a term expiring in January 2013. We currently occupy 12,000 square feet of office space in Parsippany, New Jersey, under two leases that will terminate upon our relocation in March 2003. In addition, we lease approximately 9,000 square feet of office space in Cambridge, Massachusetts under a lease expiring in August 2003. We are currently reviewing plans for replacement space in Massachusetts. We believe our current facilities will be sufficient to meet our needs for the foreseeable future, except as previously noted, and that additional space will be available on commercially reasonable terms to meet space requirements if they arise. We also have offices in Oxford, United Kingdom and Parnell, Auckland, New Zealand.

MANAGEMENT

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EXECUTIVE OFFICERS, DIRECTORS AND KEY EMPLOYEES

Our executive officers, directors and key employees and their respective ages are as follows:

| NAME ---- | AGE --- | POSITION ----- |
|---|------------|---|
| Clive A. Meanwell, M.D., Ph.D.*..... | 45 | Executive Chairman and Chairman of the Board of Directors |
| David M. Stack*..... | 51 | Chief Executive Officer, President and Director |
| Steven H. Koehler, M.B.A.*..... | 52 | Vice President and Chief Financial Officer |
| Gary Dickinson..... | 51 | Vice President |
| Sonja Barton Loar, Pharm. D., M.M. | 42 | Vice President |
| Rick R. McClure, M.D. | 43 | Vice President |
| David C. Mitchell..... | 49 | Vice President |
| Stephanie Plent, M.D. | 41 | Vice President |
| John D. Richards, D.Phil.*..... | 46 | Vice President |
| Fred M. Ryan, M.B.A. | 51 | Vice President |
| Peter Teuber, Ph.D.*..... | 44 | Vice President |
| John W. Villiger, Ph.D. | 47 | Vice President |
| Leonard Bell, M.D..... | 44 | Director |
| Stewart J. Hen, M.B.A., M.S. | 36 | Director |
| M. Fazle Husain, M.B.A.(1)..... | 38 | Director |
| T. Scott Johnson, M.D.(1)..... | 55 | Director |
| Armin M. Kessler, Dh.c.(1)(2)..... | 64 | Director |
| Nicholas J. Lowcock, M.B.A.(2)..... | 39 | Director |
| James E. Thomas, M.Sc.(2)..... | 42 | Director |

* Executive Officer

(1) Member of Audit Committee

(2) Member of the Compensation Committee

Set forth below is certain information regarding the business experience during the past five years for each of the above-named persons.

Clive A. Meanwell, M.D., Ph.D. has been a director since the inception of our company in July 1996 and has served as our Executive Chairman since September 2001. From 1996 to September 2001, Dr. Meanwell served as our Chief Executive Officer and President. From 1995 to 1996, Dr. Meanwell was a Partner and Managing Director at MPM Capital L.P., a venture capital firm. From 1986 to 1995, Dr. Meanwell held various positions at Hoffmann-La Roche, Inc., a pharmaceutical company, including Senior Vice President from 1992 to 1995, Vice President from 1991 to 1992 and Director of Product Development from 1986 to 1991. Dr. Meanwell currently serves as a director of Endo Pharmaceuticals Inc. Dr. Meanwell received an M.D. and a Ph.D. from the University of Birmingham, United Kingdom.

David M. Stack has been our President and Chief Executive Officer and a director since September 2001. From April 1, 2000 to September 2001, Mr. Stack served as a Senior Vice President. From January 2000 to September 2001, Mr. Stack also served as President and General Partner of Stack Pharmaceuticals, Inc., a commercialization, marketing and strategy consulting firm serving

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healthcare companies, and, from January 2000 to December 2001, as a Senior Advisor to the Chief Executive Officer of Innovex Inc., a contract pharmaceutical organization. Mr. Stack served as President and General Manager of Innovex Inc. from May 1995 to December 1999. Mr. Stack currently serves as a director of BioImaging Technologies, Inc. Mr. Stack received a B.S. in biology from Siena College and a B.S. in pharmacy from Albany College of Pharmacy.

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Steven H. Koehler, M.B.A. has been our Vice President and Chief Financial Officer since April 2002. From March 2002 to April 2002, Mr. Koehler served as our Vice President, Finance and Business Administration. From July 2001 to March 2002, Mr. Koehler was Vice President, Finance and Chief Financial Officer of Vion Pharmaceuticals, Inc., a biotechnology company which develops cancer treatments. From April 1999 to July 2001, Mr. Koehler served as Vice President, Finance and Administration and as a member of the executive board of Knoll Pharmaceuticals, Inc., a wholly owned subsidiary of BASF Corporation, the U.S. subsidiary of a transnational chemical and life sciences company. From June 1997 to April 1999, Mr. Koehler was Vice President, Finance and Controlling for Knoll AG in Ludwigshafen, Germany, the former global pharmaceutical subsidiary of BASF AG. From November 1995 to June 1997, he served as Vice President, Value Based Management for Knoll AG. Mr. Koehler was Vice President, Finance and Treasurer for Boots Pharmaceuticals, Inc. from 1993 until its acquisition by Knoll in 1995. Mr. Koehler is a Certified Public Accountant. Mr. Koehler received a B.A. degree from Duke University and an M.B.A. degree from the Kellogg Graduate School of Management, Northwestern University.

Gary Dickinson has been a Vice President since April 2001 with a focus on human resources activities. From March 2000 to April 2001, Mr. Dickinson was the Vice President of Human Resources of Elementis Specialties, Inc., a specialty chemicals manufacturing firm. From January 1997 to April 2001, Mr. Dickinson was the Senior Director of Human Resources of Bristol-Myers Squibb Company, a pharmaceuticals firm. Mr. Dickinson holds a B.A. from the University of Sheffield, United Kingdom.

Sonja Barton Loar, Pharm. D., M.M., has been a Vice President since June 2000 with a focus on Regulatory Affairs. Dr. Loar joined us in June 2000 as the Senior Director of Regulatory Affairs. Prior to joining us, Dr. Loar spent eight years at Interneuron Pharmaceuticals, Inc., most recently as Vice President of Regulatory Affairs. Prior to this, Dr. Loar was in international regulatory affairs with Searle Pharmaceuticals Inc., a pharmaceutical company, and worked in clinical research at DuPont Critical Care. Dr. Loar holds a Doctor of Pharmacy from the University of Nebraska, after which she completed a two-year hospital pharmacy residency at the University of Kentucky. In addition, Dr. Loar holds a Masters of Management from the Kellogg Graduate School of Management, Northwestern University.

Rick R. McClure, M.D., has been a Vice President since March 2003 with a focus on endovascular medicine. Since October 1996, Dr. McClure has been the President and Managing Partner of Kentucky Cardiovascular Group, PSC, a partnership of doctors engaged in a general and invasive/interventional cardiology practice. From July 1991 to October 1996, Dr. McClure was a partner at Cardiovascular Consultants, PSC, a partnership of doctors engaged in a general and invasive/interventional cardiology practice. Dr. McClure received a Sc.A. and an M.D. from the University of Kentucky.

David C. Mitchell has been a Vice President since December 2000 with a

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focus on information technology and information systems. From February 1999 to December 2000, Mr. Mitchell was the Vice President of Information Technology for Innovex Americas, Inc., a subsidiary of Innovex Inc., a contract pharmaceutical company. From July 1997 to October 1998, Mr. Mitchell was Director of Information Technology at NBC Broadcasting. From 1985 to July 1997, Mr. Mitchell served as the Director of Information and Technology at the Walt Disney Company. Mr. Mitchell received a Bachelor of Music from Arizona State University.

Stephanie Plent, M.D., has been a Vice President since July 2002 with a focus on medical policy and economics. Dr. Plent joined us in July 2000. Prior to joining us, Dr. Plent spent six years as Medical Director for Disease Management, Aetna US Healthcare Inc., an insurance company, and before that as a consultant in the Health Care Practice at Arthur D. Little Inc., a consulting firm. Dr. Plent received her medical degree from the Royal Free Hospital School of Medicine, United Kingdom.

John D. Richards, D.Phil. joined us in October 1997 and has been a Vice President since 1999, with a focus on product manufacturing and quality. From 1993 until he joined us in October 1997, Dr. Richards was Director of Process Development and Manufacturing at Immulogic Pharmaceutical Corporation, a pharmaceutical company. From 1989 to 1993, Dr. Richards was a Technical Manager at Zeneca PLC, a pharmaceutical company, where he developed and implemented processes for the manufacture of peptides

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as pharmaceutical active intermediates. In 1986, Dr. Richards helped establish Cambridge Research Biochemicals, a manufacturer of peptide-based products for pharmaceutical and academic customers. Dr. Richards received an M.A. and a D.Phil. in organic chemistry from the University of Oxford, United Kingdom, and has carried out post-doctoral research work at the Medical Research Councils Laboratory of Molecular Biology in Cambridge, United Kingdom.

Fred M. Ryan, M.B.A. has been a Vice President since April 2000, with a focus on corporate strategic development, new product acquisitions and Angiomax commercial development. From April 2000 to September 2001, Mr. Ryan also served as a Partner and the Vice President of Business Development of Stack Pharmaceuticals, Inc. From July 1991 to April 2000, he held senior management positions with Novartis Pharmaceuticals Corporation, a pharmaceutical company, in the United States in the areas of Finance, Strategic Planning, Business Development and Marketing, serving from 1998 to April 2000 as Executive Director Mature Products responsible for managing sales and marketing activities for a portfolio of products having annual sales in excess of \$500 million. He received a B.S. and a B.A. degrees from Bryant College and his M.B.A. from Fairleigh Dickinson University.

Peter Teuber, Ph.D. has been a Vice President since June 2001 with a focus on product development. From February 1990 to May 2001, Dr. Teuber held positions at Roche Pharmaceuticals, Inc., a global pharmaceutical company, working on product development, strategic marketing and business development. He led the development and global marketing team working on XELODA(R), an oral treatment, from the product's first human trials through the initial New Drug Application filings, two supplemental filings and approval in the United States, Europe and over 70 other countries. In addition, at Roche Dr. Teuber acted as the head of project management and served as a member of the global regulatory management team. Dr. Teuber received a Ph.D., in Pharmacy from the University of Basel in Switzerland.

John W. Villiger, Ph.D. has been a Vice President since March 1997, with a focus on cardiovascular product development. From December 1986 until he joined us in March 1997, Dr. Villiger held various positions in product development at Hoffmann-La Roche, Inc., a global pharmaceutical company, including Head of

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Global Project Management from 1995 to 1996 and International Project Director from 1991 to 1995. As Head of Global Project Management, Dr. Villiger was responsible for overseeing the development of Hoffmann-LaRoche's pharmaceutical portfolio, with management responsibility for over 50 development programs. As International Project Director, Dr. Villiger was responsible for the global development of Tolcapone, also known as tasmar. Dr. Villiger received a Ph.D. in neuropharmacology from the University of Otago.

Leonard Bell, M.D. has been a director since May 2000. From January 1992 to March 2002, Dr. Bell served as the President and Chief Executive Officer, Secretary and Treasurer of Alexion Pharmaceuticals, Inc., a pharmaceutical company. Since March 2002, Dr. Bell has served as the Chief Executive Officer, Secretary and Treasurer of Alexion Pharmaceuticals, Inc. Since 1993, Dr. Bell has served as an Adjunct Assistant Professor of Medicine and Pathology at the Yale University School of Medicine. From 1991 to 1992, Dr. Bell was an Assistant Professor of Medicine and Pathology and co-Director of the Program in Vascular Biology at the Yale University School of Medicine. From 1990 to 1992, Dr. Bell was an attending physician at the Yale-New Haven Hospital and an Assistant Professor in the Department of Internal Medicine at the Yale University School of Medicine. Dr. Bell was the recipient of the Physician Scientist Award from the National Institutes of Health and Grant-in-Aid from the American Heart Association. Dr. Bell is the recipient of various honors and awards from academic and professional organizations and his work has resulted in more than 45 scientific publications, invited presentations and patent applications. Dr. Bell is an invited Member of the State of Connecticut Governor's Council on Economic Competitiveness and Technology and a director of Connecticut United for Research Excellence, Inc. He also served as a director of the Biotechnology Research and Development Corporation from 1993 to 1997. Dr. Bell currently also serves as a director of Alexion Pharmaceuticals, Inc. Dr. Bell received an A.B. from Brown University and an M.D. from the Yale University School of Medicine.

Stewart J. Hen, M.B.A., M.S. has been a director since February 2001. Since January 2003, Mr. Hen has been a Managing Director of Warburg Pincus LLC, a private equity investment firm. From May 2000

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to January 2003, Mr. Hen was a Vice President of Warburg Pincus LLC. Mr. Hen focuses on investments in the emerging life sciences area, including biotechnology, specialty pharmaceuticals, drug delivery and diagnostics. From 1996 to May 2000, Mr. Hen was a consultant at McKinsey & Company, a consulting firm, where he advised pharmaceutical and biotechnology companies on a range of strategic management issues. Mr. Hen served at Merck & Company, a pharmaceutical company, from 1991 to 1994 in manufacturing operations. Mr. Hen currently also serves as a director of Synaptic Pharmaceuticals Corp. Mr. Hen received a B.S. in chemical engineering from the University of Delaware, an M.S. in chemical engineering from the Massachusetts Institute of Technology and an M.B.A. from The Wharton School of the University of Pennsylvania.

M. Fazle Husain, M.B.A. has been a director since September 1998. Since 1987, Mr. Husain has been employed by Morgan Stanley & Co. Incorporated, an investment banking firm, and is currently a Managing Director. Mr. Husain is also a Managing Director of Morgan Stanley Venture Capital III, Inc. Mr. Husain focuses primarily on investments in the health care industry, including health care services, medical technology and health care information technology. He currently also serves as a director of Allscripts Healthcare Solutions, Inc., Healthstream, Inc., Cross Country, Inc. and several privately held companies. Mr. Husain received an Sc.B. degree in chemical engineering from Brown University and an M.B.A. from the Harvard Graduate School of Business Administration.

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T. Scott Johnson, M.D. has been a director since September 1996. In July 1999, Dr. Johnson founded JSB Partners, L.P., an investment bank focusing on mergers and acquisitions, private financings and corporate alliances within the health care sector. From September 1991 to July 1999, Dr. Johnson served as a founder and managing director of MPM Capital, L.P., a venture capital firm. Dr. Johnson received both a B.S. and an M.D. from the University of Alabama.

Armin M. Kessler, D.h.c. has been a director since October 1998. Dr. Kessler joined us after a 35-year career in the pharmaceutical industry, which included senior management positions at Sandoz Pharma Ltd., Basel, Switzerland, United States and Japan (now Novartis Pharma AG) and, most recently, at Hoffmann-La Roche, Basel where he was Chief Operating Officer and Head of the Pharmaceutical Division until 1995. Dr. Kessler currently also serves as a director of Spectrum Pharmaceuticals, Inc. and Gen-Probe Incorporated. Dr. Kessler received degrees in physics and chemistry from the University of Pretoria, a degree in chemical engineering from the University of Cape Town, a law degree from Seton Hall and an honorary doctorate in business administration from the University of Pretoria.

Nicholas J. Lowcock, M.B.A. has been a director since December 2000, and he previously served as a director from September 1996 until December 1998. Mr. Lowcock has served as a Managing Director of Warburg Pincus LLC, a private equity investment firm, since January 2000. Since October 2002, Mr. Lowcock has also been a member of the Executive Management Group of Warburg Pincus LLC. Mr. Lowcock has been a member of Warburg Pincus LLC since 1994 and previously served as a Vice President. From 1992 to 1994, Mr. Lowcock was a consultant with the Boston Consulting Group. Mr. Lowcock currently also serves as a director of several privately held companies. Mr. Lowcock received a B.A. in Experimental Psychology from Oxford University and an M.B.A. from The Wharton School of the University of Pennsylvania.

James E. Thomas, M.Sc. has been a director since September 1996. Since March 2001, Mr. Thomas has served as Managing Partner of Thomas, McNerney & Partners, LLC, a health care private equity investment fund. From 1989 to June 2000, Mr. Thomas served in various capacities, including from 1994 to 2000, as a Partner and Managing Director, at E.M. Warburg, Pincus & Co., LLC, a private equity investment firm. From 1984 to 1989, Mr. Thomas was a Vice President of Goldman Sachs International, an investment banking firm, in London. Mr. Thomas currently also serves as a director of Transkaryotic Therapies, Inc. and Wright Medical Group. Mr. Thomas received a B.Sc. in finance and economics from The Wharton School of the University of Pennsylvania and an M.Sc. in economics from the London School of Economics.

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PRINCIPAL STOCKHOLDERS

The following table presents information we know regarding the beneficial ownership of our common stock as of February 28, 2003 for each person, entity or group of affiliated persons whom we know to beneficially own more than 5% of our common stock. The table also sets forth such information for our directors and named executive officers, individually, and our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. Except as indicated by footnote, to our knowledge, the persons named in the

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table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. Common stock purchase warrants and options to purchase shares of common stock that are exercisable within 60 days of February 28, 2003 are deemed to be beneficially owned by the person holding such options for the purpose of computing ownership of such person, but are not treated as outstanding for the purpose of computing the ownership of any other person. Applicable percentage of beneficial ownership is based on 40,841,297 shares of common stock outstanding as of February 28, 2003 and 44,841,297 shares of common stock to be outstanding after completion of this offering.

Unless otherwise indicated in the footnotes, the address of each of the individuals named below is: c/o The Medicines Company, Five Sylvan Way, Suite 200, Parsippany, New Jersey 07054.

| BENEFICIAL OWNER: | NUMBER OF SHARES BENEFICIALLY OWNED | PERCENTAGE BENEFICIALLY OWNED BEFORE OFFERING | PERCENTAGE BENEFICIALLY OWNED AFTER OFFERING |
|--|--|--|---|
| Wellington Management Company, LLP(1) .. | 5,357,240 | 13.1% | 11.9% |
| Biotech Growth N.V.(2)..... | 3,656,425 | 8.8% | 8.0% |
| T. Rowe Price Associates, Inc.(3)..... | 2,996,810 | 7.3% | 6.7% |
| Mutuelles AXA(4)..... | 2,096,430 | 5.1% | 4.7% |
| QFinance, Inc.(5)..... | 2,062,520 | 5.1% | 4.6% |
| Clive A. Meanwell(6)..... | 627,990 | 1.5% | 1.4% |
| David M. Stack(7)..... | 254,364 | * | * |
| Steven H. Koehler(8)..... | 60,334 | * | * |
| John M. Nystrom(9)..... | 2,205 | * | * |
| John D. Richards(10)..... | 28,852 | * | * |
| Peter Teuber(11)..... | 66,534 | * | * |
| Leonard Bell(12)..... | 15,647 | * | * |
| Stewart J. Hen(13)..... | 16,789 | * | * |
| M. Fazle Husain(14)..... | 120,113 | * | * |
| T. Scott Johnson(15)..... | 84,824 | * | * |
| Armin M. Kessler(16)..... | 91,311 | * | * |
| Nicholas J. Lowcock(17)..... | 17,623 | * | * |
| James E. Thomas(18)..... | 67,847 | * | * |
| All directors and executive officers as a group (12 persons)..... | 1,451,273 | 3.5% | 3.2% |

* Represents beneficial ownership of less than 1%.

(1) Includes shares owned by various investors for which Wellington Management Company, LLP serves as investment advisor with shared power to direct investments and/or to vote the shares. The shares were acquired by Wellington Trust Company, NA, a wholly owned subsidiary of Wellington Management Company, LLP. The address of Wellington Trust Company, NA and Wellington Management Company, LLP is 75 State Street, Boston, Massachusetts 02109. This information is based on a Schedule 13G/A filed by Wellington Management Company, LLP with the SEC on February 12, 2003.

(footnotes on next page)

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- (2) Consists of warrants to purchase 675,925 shares and 2,980,500 shares owned directly by Biotech Growth N.V. with respect to which BB Biotech AG and Biotech Growth N.V. share voting and dispositive power. Biotech Growth N.V. is a wholly owned subsidiary of BB Biotech AG. The address of Biotech Growth N.V. is Calle 53, Urbanizacion Obarrio, Torre Swiss Bank, Piso 16, Panama City, Zona 1, Republic of Panama. This information is based on a Schedule 13G/A filed by BB Biotech AG on behalf of Biotech Growth N.V. with the SEC on February 14, 2003.
- (3) Includes shares owned by various individual and institutional investors for which T. Rowe Price Associates, Inc. serves as investment advisor with power to direct investments and/or sole power to vote the shares. For purposes of the reporting requirements of the Securities Exchange Act of 1934, T. Rowe Price Associates, Inc. is deemed to be a beneficial owner of such shares; however, T. Rowe Price Associates, Inc. expressly disclaims that it is, in fact, the beneficial owner of such shares. The address of T. Rowe Price Associates, Inc. is 100 E. Pratt Street, Baltimore, Maryland 21202. This information is based on a Schedule 13G/A filed by T. Rowe Price Associates, Inc. with the SEC on February 4, 2003.
- (4) Includes 8,000 shares owned directly by AXA Rosenberg Investment Management LLC, a wholly owned subsidiary of AXA, 1,977,330 shares held by Alliance Capital Management L.P., a majority owned subsidiary of AXA Financial, Inc., on behalf of unaffiliated third-party client discretionary investment advisory accounts and 111,100 shares owned by The Equitable Life Assurance Society of the United States, a wholly owned subsidiary of AXA Financial, Inc. Mutelles AXA, a group of companies consisting of AXA Conseil Vie Assurance Mutuelle, AXA Assurances I.A.R.D. Mutuelle, AXA Assurance Vie Mutuelle and AXA Courtage Assurance Mutuelle, is the parent holding company of AXA. AXA is the parent holding company of AXA Financial, Inc. For purposes of the reporting requirements of the Securities Exchange Act of 1934, as amended, Mutelles AXA (and each company of the group thereof) and AXA are deemed to be beneficial owners of such shares; however, each expressly disclaims that it is, in fact, the beneficial owner of such shares. The address of AXA Conseil Vie Assurance Mutuelle, AXA Assurances I.A.R.D. Mutuelle and AXA Assurance Vie Mutuelle is 370, rue Saint Honore, 75001 Paris, France. The address of AXA Courtage Assurance Mutuelle is 26, rue Louis le Grand, 75002 Paris, France. The address of AXA is 25, avenue Matignon, 75008 Paris, France. The address of AXA Financial, Inc. is 1290 Avenue of the Americas, New York, New York 10104. This information is based on a Schedule 13G filed by AXA Conseil Vie Assurance Mutuelle, AXA Assurances I.A.R.D. Mutuelle, AXA Assurance Vie Mutuelle, AXA Courtage Assurance Mutuelle, AXA and AXA Financial, Inc. with the SEC on February 12, 2003.
- (5) Consists of shares owned directly by QFinance, Inc. with respect to which Quintiles Transnational Corp. and QFinance, Inc. share voting and dispositive power. QFinance, Inc. is a wholly owned subsidiary of Quintiles Transnational Corp. The address of QFinance, Inc. is c/o Quintiles Transnational Corp., 4709 Creekstone Drive, Suite 200, Durham, North Carolina 27703. This information is based on a Schedule 13G/A filed by Quintiles Transnational Corp. and QFinance, Inc. with the SEC on February 14, 2003.
- (6) Includes warrants to purchase 59,143 shares and options to purchase 366,261 shares. Excludes 350,000 shares subject to a pre-paid variable forward sales contract, pursuant to which Dr. Meanwell pledged 350,000 shares to secure a future obligation to deliver a maximum of 350,000 shares in February 2006.

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- (7) Includes options to purchase 249,364 shares.
 - (8) Includes options to purchase 58,334 shares.
 - (9) Includes 1,100 shares held by one of Dr. Nystrom's children. Dr. Nystrom disclaims beneficial ownership of the shares held by his child.
 - (10) Includes options to purchase 21,752 shares.
 - (11) Includes options to purchase 66,459 shares.
 - (12) Consists of options to purchase 15,647 shares. The address of Dr. Bell is c/o Alexion Pharmaceuticals, Inc., 352 Knotter Drive, Chesire, Connecticut 06410.
 - (13) Consists of options to purchase 15,834 shares held by Mr. Hen and 955 shares held by Warburg, Pincus Ventures, L.P. Warburg, Pincus & Co. is the sole general partner of Warburg, Pincus Ventures, L.P. Warburg, Pincus Ventures, L.P. is managed by Warburg Pincus LLC. Mr. Hen is a member of Warburg Pincus LLC and a general partner of Warburg, Pincus & Co. Mr. Hen may be deemed to have an indirect pecuniary interest (within the meaning of Rule 16a-1 under the Securities Exchange Act of 1934, as amended) in an indeterminate portion of the shares beneficially owned by Warburg, Pincus Ventures, L.P. Mr. Hen disclaims beneficial ownership of all of the shares owned by the Warburg Pincus entities. The address of Mr. Hen is c/o Warburg Pincus LLC, 466 Lexington Avenue, New York, NY 10017.
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- (14) Includes options to purchase 5,001 shares held by Mr. Husain, 93,767 shares held by Morgan Stanley Venture Partners III, L.P., 8,983 shares held by Morgan Stanley Venture Investors III, L.P., and 4,102 shares held by The Morgan Stanley Venture Partners Entrepreneur Fund, L.P. Mr. Husain is a managing member of Morgan Stanley Venture Partners III, L.L.C., which is the general partner of each of the Morgan Stanley funds described above. Mr. Husain disclaims such beneficial ownership except to the extent of his pecuniary interest therein.
 - (15) Includes 5,000 shares held by Dr. Johnson as trustee, warrants to purchase 13,744 shares held by Dr. Johnson and options to purchase 5,001 shares held by Dr. Johnson. The address of Dr. Johnson is c/o JSB Partners, Damonmill Square 6A, Concord, Massachusetts 01742.
 - (16) Includes 3,000 shares held by Dr. Kessler's wife, warrants to purchase 33,796 shares held by Dr. Kessler and options to purchase 19,601 shares held by Dr. Kessler.

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(17) Consists of options to purchase 16,668 shares held by Mr. Lowcock and 955 shares held by Warburg, Pincus Ventures, L.P. Warburg, Pincus & Co. is the sole general partner of Warburg, Pincus Ventures, L.P. Warburg, Pincus Ventures, L.P. is managed by Warburg Pincus LLC. Mr. Lowcock is a member of Warburg Pincus LLC and a general partner of Warburg, Pincus & Co. Mr. Lowcock may be deemed to have an indirect pecuniary interest (within the meaning of Rule 16a-1 under the Securities Exchange Act of 1934, as amended) in an indeterminate portion of the shares beneficially owned by Warburg, Pincus Ventures, L.P. Mr. Lowcock disclaims beneficial ownership of all of the shares owned by the Warburg Pincus entities. The address of Mr. Lowcock is c/o Warburg Pincus LLC, 466 Lexington Avenue, New York, NY 10017.

(18) Includes options to purchase 15,647 shares. The address of Mr. Thomas is Woods End Road, New Canaan, Connecticut 06840.

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UNDERWRITERS

Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated, Bear, Stearns & Co. Inc. and CIBC World Markets Corp. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated below:

| NAME | NUMBER OF SHARES |
|--|---------------------|
| ----- | ----- |
| Morgan Stanley & Co. Incorporated..... | |
| Bear, Stearns & Co. Inc. | |
| CIBC World Markets Corp. | |
| | |
| Total..... | 4,000,000 ===== |

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the public offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of \$ _____ a share under the public offering price.

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Any underwriter may allow, and such dealers may reallow, a concession not in excess of \$ _____ a share to other underwriters or to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of 600,000 additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table. If the underwriters' option is exercised in full, the total price to the public would be \$ _____, the total underwriters' discounts and commissions would be \$ _____ and total proceeds to us would be \$ _____.

Our common stock is quoted on the Nasdaq National Market under the symbol "MDCO."

We have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, we will not, during the period ending 90 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or

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dispose of directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or

- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock,

whether any transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise.

The restrictions described in the preceding paragraph do not apply to:

- the sale of shares to the underwriters, or
- the issuance by us of shares of common stock pursuant to our employee stock purchase plan or upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing.

Our officers and directors have each agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, they will not, during the period ending 90 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to

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purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or

- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock,

whether any transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise.

The restrictions described in the preceding paragraph do not apply to:

- any shares of our common stock acquired in the open market after the completion of this offering,
- the transfer of any shares of our common stock or securities convertible into common stock as a gift, subject to specified conditions including that the recipient of the gift agree to the restrictions described above,
- any shares of common stock to be sold pursuant to a sales plan, outstanding as of the date of this prospectus, established in accordance with Rule 10b5-1 of the Exchange Act, or
- transfers of our common stock or any security convertible into common stock to limited partners or to any trust for the direct or indirect benefit of stockholders or their immediate family, as long as the transfer of the trust agrees to be bound by the restrictions set forth above.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is "covered" if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-allotment option. The underwriters may also sell shares in excess of the over-allotment option, creating a "naked" short position. 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. In addition, to cover over-allotments or to stabilize

the price of the common stock, the underwriters may bid for, and purchase, shares of the common stock in the open market. Finally, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the common stock in the offering, if the syndicate repurchases previously distributed common stock in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the common stock above independent

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market levels. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

M. Fazle Husain, a member of our board of directors, is a managing director of Morgan Stanley & Co. Incorporated. Mr. Husain is also a managing member of Morgan Stanley Venture Partners III, L.L.C., which is an affiliate of Morgan Stanley & Co. Incorporated and the general partner of three investment funds which, collectively with Mr. Husain, hold 120,113 shares of our common stock as of March 4, 2003, or approximately 0.3% of our common stock after the offering (0.3% if the over-allotment option granted to the underwriters is exercised in full).

From time to time, the representatives have provided, and continue to provide, investment banking and other services to us.

We paid CIBC World Markets Corp. an aggregate of \$250,000 during the last year for strategic advisory services.

In November 2002, Clive A. Meanwell entered into a pre-paid variable forward sales contract with Bear Stearns Bank plc, an affiliate of Bear, Stearns & Co. Inc., pursuant to which Dr. Meanwell pledged 350,000 shares of our common stock to secure a future obligation to deliver a maximum of 350,000 shares of common stock in February 2006. In exchange for his agreement, Dr. Meanwell received \$4,103,190. The actual number of shares that Dr. Meanwell is obligated to deliver in February 2006 will vary based on the average closing price of our common stock during the seven week period prior to the contract settlement date.

TRANSFER AGENT AND REGISTRAR

Mellon Investor Services, 85 Challenger Road, Ridgefield Park, NJ 07660, is the transfer agent for our common stock.

LEGAL MATTERS

Certain legal matters with respect to the validity of the shares of common stock offered will be passed upon for us by Hale and Dorr LLP, Boston, Massachusetts. Partners of Hale and Dorr LLP beneficially own an aggregate of 18,844 shares of our common stock and warrants exercisable for 1,554 additional shares of common stock. Certain legal matters in connection with this offering will be passed upon for the underwriters by Ropes & Gray, Boston, Massachusetts.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements at December 31, 2002 and 2001, and for each of the three years in the period ended December 31, 2002, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

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We have filed a registration statement on Form S-3 with the SEC in connection with this offering. In addition, we file annual, quarterly and current reports, proxy statements and other documents with the SEC under the Securities Exchange Act of 1934, as amended, or the Exchange Act. You may read and copy any document we file at the SEC's public reference room at Judiciary Plaza Building, 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's internet site at <http://www.sec.gov>.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's internet site.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC requires us to incorporate into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this prospectus and prior to the termination of this offering. Information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supercedes previously filed information, as applicable. The following documents filed with the SEC (File No. 0-31191), pursuant to the Exchange Act, are incorporated herein by reference:

(1) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2002, filed with the SEC on March 5, 2003.

(2) Our Current Report on Form 8-K, filed with the SEC on February 13, 2003.

(3) All of our filings pursuant to the Exchange Act after the date of filing the initial registration statement and prior to effectiveness of the registration statement.

(4) The description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC and declared effective on July 28, 2000.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any or all of the documents which are incorporated herein by reference. Requests should be directed to The Medicines Company, Five Sylvan Way, Suite 200, Parsippany, New Jersey 07054, Attention: Investor Relations, Telephone: (973) 656-1616.

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REPORT OF INDEPENDENT AUDITORS

Board of Directors and Stockholders
The Medicines Company

We have audited the accompanying consolidated balance sheets of The Medicines Company as of December 31, 2001 and 2002, and the related consolidated statements of operations, redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows, for each of the three years in the period ending December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Medicines Company at December 31, 2001 and 2002, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States.

/s/ ERNST & YOUNG LLP

MetroPark, New Jersey
February 11, 2003

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THE MEDICINES COMPANY
CONSOLIDATED BALANCE SHEETS

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| | DECEMBER 31, | |
|---|---------------|---------------|
| | 2001 | 2002 |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents..... | \$ 53,884,376 | \$ 36,777,007 |
| Available for sale securities..... | 125,000 | 6,731,728 |
| Accrued interest receivable..... | 6,757 | 129,414 |
| Accounts receivable, net of allowance of \$0.05 million as of December 31, 2001 and 2002..... | 6,119,325 | 15,664,432 |
| Inventories..... | 16,610,928 | 14,178,660 |
| Prepaid expenses and other current assets..... | 550,564 | 660,720 |
| Total current assets..... | 77,296,950 | 74,141,961 |
| Fixed assets, net..... | 1,223,528 | 924,497 |
| Other assets..... | 153,076 | 233,854 |
| Total assets..... | \$ 78,673,554 | \$ 75,300,312 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable..... | \$ 8,805,476 | \$ 8,291,995 |
| Accrued expenses..... | 8,747,114 | 11,678,078 |
| Total current liabilities..... | 17,552,590 | 19,970,073 |
| Commitments and contingencies..... | -- | -- |
| Deferred revenue..... | -- | 1,395,833 |
| Stockholders' equity: | | |
| Preferred stock, \$1.00 par value per share, 5,000,000 shares authorized; no shares issued and outstanding.... | -- | -- |
| Common stock, \$.001 par value per share, 75,000,000 shares authorized at December 31, 2001 and December 31, 2002, respectively; 34,606,582 and 39,894,285 issued and outstanding at December 31, 2001 and December 31, 2002, respectively..... | 34,607 | 39,894 |
| Additional paid-in capital..... | 321,041,704 | 354,239,193 |
| Deferred compensation..... | (8,593,773) | (3,125,494) |
| Accumulated deficit..... | (251,443,682) | (297,274,830) |
| Accumulated other comprehensive income..... | 82,108 | 55,643 |
| Total stockholders' equity..... | 61,120,964 | 53,934,406 |
| Total liabilities and stockholders' equity..... | \$ 78,673,554 | \$ 75,300,312 |

See accompanying notes.

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THE MEDICINES COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS

| YEAR ENDED DECEMBER 31, | | |
|-------------------------|------|------|
| 2000 | 2001 | 2002 |

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| | | | |
|--|------------------|-----------------|-----------------|
| | ----- | ----- | ----- |
| Net revenue..... | \$ -- | \$ 14,247,724 | \$ 38,301,286 |
| Operating expenses: | | | |
| Cost of revenue..... | -- | 2,110,425 | 10,284,033 |
| Research and development..... | 39,572,297 | 32,767,394 | 37,951,458 |
| Selling, general and administrative..... | 15,033,585 | 36,566,761 | 36,807,679 |
| | ----- | ----- | ----- |
| Total operating expenses..... | 54,605,882 | 71,444,580 | 85,043,170 |
| Loss from operations..... | (54,605,882) | (57,196,856) | (46,741,884) |
| Other income (expense): | | | |
| Interest income..... | 2,704,126 | 3,163,208 | 943,583 |
| Interest expense..... | (19,390,414) | -- | (32,847) |
| Loss on sale of investment..... | -- | (850,000) | -- |
| | ----- | ----- | ----- |
| Net loss..... | (71,292,170) | (54,883,648) | (45,831,148) |
| Dividends and accretion to redemption value of redeemable preferred stock..... | (30,342,988) | -- | -- |
| | ----- | ----- | ----- |
| Net loss attributable to common stockholders.... | \$ (101,635,158) | \$ (54,883,648) | \$ (45,831,148) |
| | ===== | ===== | ===== |
| Basic and diluted net loss attributable to common stockholders per common share..... | \$ (8.43) | \$ (1.67) | \$ (1.23) |
| Unaudited pro forma basic and diluted net loss attributable to common stockholders per common share..... | \$ (2.10) | \$ (1.67) | \$ (1.23) |
| Shares used in computing net loss attributable to common stockholders per common share: | | | |
| Basic and diluted..... | 12,059,275 | 32,925,968 | 37,209,931 |
| Unaudited pro forma basic and diluted..... | 24,719,075 | 32,925,968 | 37,209,931 |

See accompanying notes.

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THE MEDICINES COMPANY

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND
STOCKHOLDERS' EQUITY (DEFICIT)
FOR THE YEARS ENDED DECEMBER 31, 2000, 2001 AND 2002

| | REDEEMABLE CONVERTIBLE PREFERRED STOCK | | COMMON STOCK | | ADDITIONAL CAPITAL |
|--|---|------------|--------------|--------|-----------------------|
| | SHARES | AMOUNT | SHARES | AMOUNT | |
| | ----- | ----- | ----- | ----- | ----- |
| Balance at December 31, 1999... | 22,962,350 | 85,277,413 | 833,400 | 834 | 339 |
| Repurchase of common stock... | | | (22,205) | (22) | |
| Employee stock purchases..... | | | 227,525 | 226 | 286 |
| Issuance of redeemable preferred stock..... | 5,946,366 | 25,688,284 | | | |
| Accretion and dividend on preferred stock..... | 1,751,241 | 4,898,537 | | | |
| Beneficial conversion of redeemable convertible preferred stock..... | | | | | 25,444 |
| Issuance of warrants | | | | | |

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| | | | |
|--|---------------|----------|--------------|
| options..... | | | -- |
| Adjustments to deferred compensation for terminations..... | | | -- |
| Amortization of deferred stock compensation..... | | | 3,726,433 |
| Net loss..... | (71,292,170) | | (71,292,170) |
| Currency translation adjustment..... | | 5,141 | 5,141 |
| Unrealized loss on marketable securities..... | | (34,482) | (34,482) |
| Comprehensive loss..... | | | (71,321,511) |
| Balance at December 31, 2000... | (196,560,034) | (1,946) | 69,238,983 |
| Repurchase of common stock... | | | (11) |
| Employee stock purchases..... | | | 743,445 |
| Issuance of common stock through private placement..... | | | 41,802,975 |
| Adjustments to deferred compensation for terminations..... | | | -- |
| Amortization of deferred stock compensation..... | | | 4,135,166 |
| Net loss..... | (54,883,648) | | (54,883,648) |

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| | REDEEMABLE CONVERTIBLE PREFERRED STOCK | | COMMON STOCK | | ADDITIONAL CAPITAL |
|---|--|--------|--------------|----------|--------------------|
| | SHARES | AMOUNT | SHARES | AMOUNT | |
| Currency translation adjustment..... | | | | | |
| Reclassification adjustment for realized loss on available for sale securities..... | | | | | |
| Comprehensive loss..... | | | | | |
| Balance at December 31, 2001... | -- | \$ -- | 34,606,582 | \$34,607 | \$321,041 |
| Employee stock purchases..... | | | 738,081 | 738 | 2,993 |
| Issuance of common stock--Nycomed purchase.... | | | 79,428 | 79 | 999 |
| Issuance of common stock--through public sale..... | | | 4,000,000 | 4,000 | 30,906 |
| Issuance of common stock--Warrant purchases... | | | 470,194 | 470 | |
| Adjustments to deferred compensation for terminations..... | | | | | (2,191) |
| Non-cash stock compensation--terminations..... | | | | | 490 |
| Amortization of deferred stock compensation..... | | | | | |

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| | | | | | |
|--|-------------|----------------|------------|----------|--------------------|
| Net loss..... | | | | | |
| Currency translation adjustment..... | | | | | |
| Reclassification adjustment for realized loss on available for sale securities..... | | | | | |
| Comprehensive loss..... | | | | | |
| Balance at December 31, 2002... | ----- -- | \$ ----- -- | 39,894,285 | \$39,894 | ----- \$354,239 |
| | ===== | ===== | ===== | ===== | ===== |

| | ACCUMULATED DEFICIT | ACCUMULATED COMPREHENSIVE INCOME (LOSS) | TOTAL STOCKHOLDERS' EQUITY/ (DEFICIT) |
|--|---------------------------|--|--|
| | ----- | ----- | ----- |
| Currency translation adjustment..... | | 47,446 | 47,446 |
| Reclassification adjustment for realized loss on available for sale securities..... | | 36,608 | 36,608 |
| Comprehensive loss..... | | | ----- (54,799,594) |
| Balance at December 31, 2001... | ----- \$ (251,443,682) | ----- \$ 82,108 | ----- \$ 61,120,964 |
| Employee stock purchases..... | | | 2,994,236 |
| Issuance of common stock--Nycomed purchase.... | | | 1,000,000 |
| Issuance of common stock--through public sale..... | | | 30,910,000 |
| Issuance of common stock--Warrant purchases... | | | (77) |
| Adjustments to deferred compensation for terminations..... | | | -- |
| Non-cash stock compensation-- terminations..... | | | 490,261 |
| Amortization of deferred stock compensation..... | | | 3,276,635 |
| Net loss..... | (45,831,148) | | (45,831,148) |
| Currency translation adjustment..... | | (42,240) | (42,240) |
| Reclassification adjustment for realized loss on available for sale securities..... | | 15,775 | 15,775 |
| Comprehensive loss..... | | | ----- (45,857,613) |
| Balance at December 31, 2002... | ----- \$ (297,274,830) | ----- \$ 55,643 | ----- \$ 53,934,406 |
| | ===== | ===== | ===== |

See accompanying notes.

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THE MEDICINES COMPANY

CONSOLIDATED STATEMENTS OF CASH FLOWS

| | YEAR ENDED DECEMBER 31, | | |
|--|-------------------------|-----------------|----------------|
| | 2000 | 2001 | 2002 |
| Cash flows from operating activities: | | | |
| Net loss..... | \$ (71,292,170) | \$ (54,883,648) | \$ (45,831,14) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | |
| Depreciation..... | 277,307 | 470,930 | 555,02 |
| Amortization of premium on available for sale securities..... | -- | -- | 66,51 |
| Amortization of discount on convertible notes..... | 19,013,486 | -- | -- |
| Non-cash stock compensation expense..... | 3,726,433 | 4,135,166 | 3,766,89 |
| Loss on sales and disposal of fixed assets..... | 14,631 | 2,113 | 1,07 |
| Changes in operating assets and liabilities: | | | |
| Accrued interest receivable..... | (1,337,703) | 1,386,171 | (122,65 |
| Accounts receivable..... | -- | (6,119,325) | (9,545,10 |
| Inventory..... | (1,963,491) | (14,620,838) | 2,405,66 |
| Prepaid expenses and other current assets..... | (312,027) | (85,806) | (108,34 |
| Other assets..... | (82,391) | 96,927 | (80,77 |
| Accounts payable..... | (1,823,602) | 2,819,943 | (516,06 |
| Accrued expenses..... | 5,708,535 | (377,245) | 2,887,07 |
| Deferred revenue..... | -- | -- | 1,395,83 |
| Net cash used in operating activities..... | (48,070,992) | (67,175,612) | (45,126,00 |
| Cash flows from investing activities: | | | |
| Purchase of available for sale securities..... | (51,098,901) | (7,430,886) | (6,782,47 |
| Maturities and sales of available for sale securities..... | 9,083,090 | 49,863,097 | 125,00 |
| Purchase of fixed assets..... | (834,160) | (735,571) | (247,21 |
| Net cash provided by (used in) investing activities..... | (42,849,971) | 41,696,640 | (6,904,68 |
| Cash flows from financing activities: | | | |
| Proceeds from revolving line of credit borrowings... | -- | -- | 10,000,00 |
| Repayments of revolving line of credit borrowings... | -- | -- | (10,000,00 |
| Proceeds from issuance of convertible notes and warrants..... | 13,348,779 | -- | -- |
| Proceeds from issuances of preferred stock, net..... | 6,095,338 | -- | -- |
| Proceeds from issuances of common stock, net..... | 101,636,334 | 42,546,409 | 34,904,15 |
| Dividends paid in cash..... | (118) | -- | -- |
| Net cash provided by financing activities..... | 121,080,333 | 42,546,409 | 34,904,15 |
| Effect of exchange rate changes on cash..... | (280) | 14,583 | 19,17 |
| Increase (decrease) in cash and cash equivalents..... | 30,159,090 | 17,082,020 | (17,107,36 |
| Cash and cash equivalents at beginning of period..... | 6,643,266 | 36,802,356 | 53,884,37 |
| Cash and cash equivalents at end of period..... | \$ 36,802,356 | \$ 53,884,376 | \$ 36,777,00 |
| Non-cash transactions: | | | |
| Dividends on preferred stock..... | \$ 31,894,474 | \$ -- | \$ -- |
| Supplemental disclosure of cash flow information: | | | |

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| | | | |
|--------------------|------------|----------|----------|
| Interest paid..... | \$ 255,781 | \$ -- | \$ 32,84 |
| | ===== | ===== | ===== |
| Taxes paid..... | \$ -- | \$ 6,303 | \$ 35,06 |
| | ===== | ===== | ===== |

See accompanying notes.

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2002

1. NATURE OF BUSINESS

The Medicines Company (the "Company") was incorporated in Delaware on July 31, 1996. The Company is a specialty pharmaceutical company engaged in the acquisition, development and commercialization of late-stage development drugs or drugs approved for marketing. The U.S. Food and Drug Administration approved Angiomax(R) (bivalirudin) for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing coronary angioplasty in December 2000, and the Company commenced sales of Angiomax in the first quarter of 2001. The Company was considered to be a development-stage enterprise, as defined in Statement of Financial Accounting Standards No. 7, "Accounting and Reporting by Development-Stage Enterprises," through December 31, 2000. With the commencement of sales in 2001, the Company is no longer considered to be a development-stage enterprise.

2. SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation. The Company has no unconsolidated subsidiaries.

USE OF ESTIMATES

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

RECLASSIFICATION

Certain reclassifications have been made to prior years' information to conform to the 2002 presentation.

RISKS AND UNCERTAINTIES

The Company is subject to risks common to companies in the pharmaceutical industry including, but not limited to, uncertainties related to regulatory approvals, dependence on key products, dependence on key customers and suppliers, and protection of proprietary rights.

CONCENTRATIONS OF CREDIT RISK

Financial instruments that potentially subject the Company to concentration of credit risk include cash, cash equivalents, available for sale securities and

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accounts receivable. The Company believes it minimizes its exposure to potential concentrations of credit risk by placing investments in high-quality financial instruments with high quality institutions. At December 31, 2002, approximately \$31.2 million of the cash and cash equivalents balance was invested in a single fund, the Munder Money Market Fund, a no-load money market fund.

The Company's products are sold primarily to a limited number of national medical and pharmaceutical distributors and wholesalers with distribution centers located throughout the United States. The Company performs ongoing credit evaluations of its customers and generally does not require collateral. The Company maintains reserves for potential credit losses and, during 2002, such losses were

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

within the expectations of management. During 2001 and 2002, the Company's revenues from three of its customers totaled approximately 94% of net revenues. At December 31, 2001 and 2002, these same customers represented approximately \$5.9 million, or 97%, and \$15.1 million, or 96%, respectively, of gross accounts receivable.

CASH, CASH EQUIVALENTS AND AVAILABLE FOR SALE SECURITIES

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. Cash equivalents at December 31, 2001 and 2002 consist of investments in money market funds. These investments are carried at cost, which approximates fair value.

The Company considers securities with original maturities of greater than three months to be available for sale securities. Securities under this classification are recorded at fair market value and unrealized gains and losses are recorded as a separate component of stockholders' equity. The cost of debt securities in this category is adjusted for amortization of premium and accretion of discount to maturity. The estimated fair value of the available for sale securities is determined based on quoted market prices or rates for similar instruments. At December 31, 2001, the Company held a certificate of deposit for \$125,000 with a one-year term that was pledged as a security deposit on its facility lease in Parsippany, New Jersey. This certificate of deposit matured in 2002.

Available for sale securities consisted of investments in corporate bonds, United States government agency notes and certificates of deposit with maturities of less than one year and are summarized as follows:

| 2001 | COST | UNREALIZED GAIN | FAIR VALUE |
|-----------------------------|------------|--------------------|---------------|
| ---- | ----- | ----- | ----- |
| Certificate of Deposit..... | \$ 125,000 | \$-- | \$125,000 |
| | ----- | -- | ----- |
| TOTAL..... | \$ 125,000 | \$-- | \$125,000 |
| | ===== | == | ===== |

UNREALIZED FAIR

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| 2002 | COST | GAIN | VALUE |
|-----------------------------------|-------------|----------|-------------|
| ---- | ----- | ----- | ----- |
| Certificates of deposit..... | \$1,499,944 | \$ -- | \$1,499,944 |
| Corporate debt securities..... | 2,606,044 | 7,042 | 2,613,086 |
| U.S. government agency notes..... | 2,609,965 | 8,733 | 2,618,698 |
| | ----- | ----- | ----- |
| TOTAL..... | \$6,715,953 | \$15,775 | \$6,731,728 |
| | ===== | ===== | ===== |

During the second quarter of 2001, the Company sold its \$3.0 million investment in Southern California Edison 5 7/8% bonds, which were originally due on January 15, 2001, realizing a loss of \$850,000 on the sale. There were also maturities of available for sale securities during the year ended December 31, 2001, which are disclosed in the accompanying consolidated statements of cash flows. There were no realized gains or losses in 2002.

REVENUE RECOGNITION

The Company sells its products primarily to wholesalers and distributors who, in turn sell to hospitals. The Company recognizes revenue from product sales in accordance with generally accepted accounting principles in the United States including the guidance in Staff Accounting Bulletin 101. Revenue from product sales is recognized when there is persuasive evidence of an arrangement, delivery has occurred, the price is fixed and determinable, and collectibility is reasonably assured. However because the Company's products are sold with limited rights of return, the Company's recognition of revenue from product sales is

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

also subject to the Statement of Financial Accounting Standards No. 48, or SFAS 48, "Revenue Recognition When Right of Return Exists." Under SFAS 48, revenue is recognized when the price to the buyer is fixed, the buyer is obligated to pay the Company and the obligation to pay is not contingent on resale of the product, the buyer has economic substance apart from the Company, the Company has no obligations to bring about sale of the product and the amount of returns can be reasonably be estimated. The Company reserves for estimated returns at the time of sale and revenues are reported net of such amounts.

The Company records allowances for product returns, rebates and discounts, and reports revenue net of such allowances. The Company must make significant judgments and estimates in determining the allowances. If actual results differ, the Company will likely be required to make adjustments to these allowances in the future:

- The Company's customers have the right to return any unopened product with less than six months to the labeled expiration date, provided that the product is returned within 12 months of the labeled expiration date. As a result, the Company must estimate the likelihood that product sold to wholesalers might remain in their inventory to within six months of expiration and determine if it will be returned. The Company bases its estimates on information from customers, historic patterns of returns, industry data and on the expiration dates of product currently being shipped.
- Certain hospitals purchasing the Company's products from wholesalers have the right to receive a discounted price and a volume-based

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rebate if they participate in a group purchasing organization that has a contract with the Company. As a result, the Company must estimate the likelihood that product sold to wholesalers might be ultimately sold to a participating hospital. The Company bases its estimates on information from customers, industry data, historic patterns of discounts and customer rebate thresholds.

Revenue from collaborative agreements may include non-refundable fees or milestone payments. These payments are recorded as deferred revenue until contractual performance obligations have been satisfied, and they are recognized ratably over the term of these agreements. When the period of deferral cannot be specifically identified from the contract, the Company must estimate the period based upon other critical factors contained within the contract. The Company reviews these estimates, at least annually, which could result in a change in the deferral period.

ADVERTISING COSTS

The Company expenses advertising costs as incurred. Advertising costs were approximately \$807,000, \$1,258,000 and \$837,000 for the years ended December 31, 2000, 2001 and 2002, respectively.

INVENTORIES

Inventory is recorded upon the transfer of title from our vendors. Inventory is stated at the lower of cost or market value with cost determined using a weighted average of costs. All costs associated with the manufacture of Angiomax bulk drug product and finished product to which the title transferred to us prior to FDA approval of Angiomax and of its original manufacturing process were expensed as research and development. In December 2000, we received FDA approval for Angiomax and its original manufacturing process. Any Angiomax bulk drug product manufactured according to its original manufacturing process to which we took title after FDA approval is recorded as inventory. Together with UCB Bioproducts, the Company has developed, but not yet received FDA approval of, a second generation chemical synthesis process, the Chemilog process, for the manufacture of Angiomax bulk drug substance. All Angiomax bulk drug product manufactured using the Chemilog process to which title has transferred to the Company to

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

date has been expensed as research and development. The Company reviews the inventory for slow moving or obsolete amounts based on expected revenues. If actual revenues are less than expected, allowances for excess amounts may be required in the future.

| INVENTORIES | 2001 | 2002 |
|-----------------------|--------------|--------------|
| ----- | ----- | ----- |
| Raw materials..... | \$14,547,422 | 4,126,870 |
| Work-in-progress..... | 1,991,874 | 8,370,949 |
| Finished Goods..... | 71,632 | 1,680,841 |
| | ----- | ----- |
| TOTAL..... | \$16,610,928 | \$14,178,660 |
| | ===== | ===== |

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FIXED ASSETS

Fixed assets are stated at cost. Depreciation is provided using the straight-line method based on estimated useful lives or, in the case of leasehold improvements, over the lesser of the useful lives or the lease terms.

RESEARCH AND DEVELOPMENT

Expenditures for research and development costs are expensed as incurred.

STOCK-BASED COMPENSATION

Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation" encourages, but does not require, companies to record compensation cost for stock-based employee compensation plans at fair value. The Company has elected to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25").

The following table illustrates the effect on net income and earnings per share if the Company had applied the fair value recognition provisions of SFAS 123 to stock-based employee compensation:

| | YEARS ENDED DECEMBER 31, | | |
|---|--------------------------|--------------|--------------|
| | 2000 | 2001 | 2002 |
| Net loss attributable to common stockholders--As reported..... | \$101,635,158 | \$54,883,648 | \$45,831,148 |
| Deduct: Total stock-based compensation expense determined under fair value based method for all stock option awards and discounts under the Employee Stock Purchase Plan, net of amortization of deferred stock compensation..... | 4,515,446 | 10,923,152 | 2,477,278 |
| Net loss attributable to common stockholders--Pro forma..... | \$106,150,604 | \$65,806,800 | \$48,308,426 |
| Net loss per share attributable to common stockholders--As reported..... | \$ (8.43) | \$ (1.67) | \$ (1.23) |
| Net loss per share attributable to common stockholders--Pro forma..... | \$ (8.80) | \$ (2.00) | \$ (1.30) |

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

The fair value of each option grant was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions:

| | YEARS ENDED DECEMBER 31, | | |
|--|--------------------------|------|------|
| | 2000 | 2001 | 2002 |

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| | | | |
|--------------------------------------|-------|-------|-------|
| Expected dividend yield..... | 0% | 0% | 0% |
| Expected stock price volatility..... | 70% | 96% | 90% |
| Risk-free interest rate..... | 6.32% | 4.0% | 3.0% |
| Expected option term..... | 3.35 | 3.34 | 2.79 |
| | years | years | years |

TRANSLATION OF FOREIGN CURRENCIES

The functional currencies of the Company's foreign branches and subsidiaries are the local currencies: British pound sterling, Swiss franc and New Zealand dollar. The Company translates its foreign operations using a current exchange rate. In accordance with Statement of Financial Accounting Standards No. 52, assets and liabilities are exchanged using the current exchange rate as of the balance sheet date. Stockholders' equity is exchanged using historical rates at the balance sheet date. Expenses and items of income are exchanged using a weighted average exchange rate over the period ended on the balance sheet date. Adjustments resulting from the translation of the financial statements of the Company's foreign subsidiaries into U.S. dollars are excluded from the determination of net loss and are accumulated in a separate component of stockholders' equity. Foreign exchange transaction gains and losses are included in the results of operations and are not material to the Company's consolidated financial statements.

INCOME TAXES

Deferred tax assets and liabilities are determined based on differences between financial reporting and income tax bases of assets and liabilities, as well as net operating loss carryforwards, and are measured using the enacted tax rates and laws in effect when the differences reverse. Deferred tax assets are reduced by a valuation allowance to reflect the uncertainty associated with ultimate realization.

COMPREHENSIVE INCOME (LOSS)

The Company reports comprehensive income (loss) and its components in accordance with the provisions of SFAS No. 130, "Reporting Comprehensive Income." Comprehensive income (loss) includes all changes in equity for cumulative translations adjustments resulting from the consolidation of foreign branches and subsidiaries' financial statements and unrealized gains and losses on available for sale securities.

NET LOSS PER SHARE

Basic net loss per share is computed using the weighted average number of shares of common stock outstanding during the period reduced, where applicable, for outstanding, yet unvested, shares. Diluted net loss per share includes the effect of stock options, warrants and redeemable convertible preferred stock and convertible notes outstanding during the period, if dilutive. Since the Company has a net loss for all periods presented, the effect of all potentially dilutive securities is antidilutive. Accordingly, basic and diluted net loss per share are the same.

UNAUDITED PRO FORMA NET LOSS PER SHARE

Unaudited pro forma net loss per share is computed using the weighted average number of common shares outstanding, including the pro forma effects of automatic conversion of all outstanding redeemable

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

convertible preferred stock and accrued dividends and convertible notes and accrued interest through the balance sheet date into shares of the Company's common stock (Common Stock) effective upon the closing of the Company's initial public offering, as if such conversion had occurred at the date of original issuance.

SEGMENTS

The Company manages its business and operations as one segment and is focused on the acquisition, development and commercialization of late-stage development drugs and drugs approved for marketing. The Company has license rights to Angiomax(R) and has the option to license the rights to another potential product, clevidipine. Revenues reported to date are derived primarily from the sales of the Company's Angiomax(R) product.

3. THE COMPANY'S PLANS AND FINANCING

The Company has incurred substantial losses since inception. To date, the Company has primarily funded its operations through the issuance of debt and equity. The Company expects to continue to expend substantial amounts for continued product research, development and commercialization activities for the foreseeable future, and the Company plans to fund these expenditures by increasing revenue or through debt or equity financing, if possible, and to secure collaborative partnering arrangements that will provide available cash funding for operations. Should revenue growth or additional debt or equity financing or collaborative partnering arrangements be unavailable to the Company, it will restrict certain of its planned activities and operations, as necessary, to sustain operations and conserve cash resources.

4. FIXED ASSETS

Fixed assets consist of the following:

| | ESTIMATED LIFE (YEARS) | DECEMBER 31, | |
|--|---------------------------|--------------|-------------|
| | | 2001 | 2002 |
| | ----- | ----- | ----- |
| Furniture, fixtures and equipment..... | 3 | \$ 675,482 | \$ 785,190 |
| Computer hardware and software..... | 3 | 1,314,358 | 1,443,076 |
| Leasehold improvements..... | 5 | 250,585 | 269,448 |
| | | ----- | ----- |
| | | 2,240,425 | 2,497,714 |
| Less: Accumulated depreciation..... | | (1,016,897) | (1,573,217) |
| | | ----- | ----- |
| | | \$ 1,223,528 | \$ 924,497 |
| | | ===== | ===== |

Depreciation expense was approximately \$277,000, \$471,000 and \$555,000 for the years ended December 31, 2000, 2001 and 2002, respectively.

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

5. ACCRUED EXPENSES

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Accrued expenses consist of the following at December 31:

| | 2001 | 2002 |
|---|-------------|--------------|
| | ----- | ----- |
| Compensation related..... | \$1,142,131 | \$ 2,812,737 |
| Development services..... | 3,311,060 | 3,118,093 |
| Product returns, rebates and discounts..... | 772,641 | 2,906,778 |
| Sales and marketing..... | 2,202,632 | 651,375 |
| Royalties and commissions..... | 707,313 | 1,676,718 |
| Legal, accounting and other..... | 611,337 | 512,377 |
| | ----- | ----- |
| | \$8,747,114 | \$11,678,078 |
| | ===== | ===== |

6. CONVERTIBLE NOTES AND COMMON STOCK PURCHASE WARRANTS

In October 1999, the Company issued \$6,000,000 of 8% convertible notes (October Notes) and 1,013,877 Common Stock purchase warrants (October Warrants) to existing investors, raising proceeds of \$6,000,000. The October Notes were convertible into shares of stock of the Company upon a subsequent sale of stock of the Company provided that such sale resulted in aggregate gross proceeds of at least \$6,000,000. Each October Warrant provides the holder with the right to purchase one share of Common Stock at a price of \$5.92 per share at any time prior to October 19, 2004. The Company recorded \$325,355 as the fair value of the October Warrants using the Black-Scholes method and the estimated fair value of the Common Stock on the date of the issuance of the October Warrants, and \$5,674,645 as the value of the October Notes on the issuance date. The discount on the October Notes was amortized to interest expense over the expected term of the October Notes to June 2000. Since the October Notes were issued in October 1999, the carrying amount at December 31, 1999 approximated their fair value at December 31, 1999. Upon completion of the Company's sale of Series IV redeemable convertible preferred stock (Series IV Redeemable Convertible Preferred Stock) in May 2000, the principal and accrued interest on the October Notes were converted into 1,393,909 shares of Series IV Redeemable Convertible Preferred Stock. At December 31, 2002 there were 694,897 October Warrants outstanding.

In March 2000, the Company issued \$13,348,779 of 8% Convertible Notes (March Notes) and 2,255,687 Common Stock Purchase Warrants (March Warrants) to current stockholders, raising proceeds of \$13,348,779. The March Notes were convertible into shares of Common Stock upon a subsequent private sale of Common Stock, provided that such sale resulted in aggregate gross proceeds of at least \$6,000,000. Each March Warrant provides the holder with the right to purchase one share of Common Stock of the Company at a price of \$5.92 per share at any time prior to March 2005. The Company recorded approximately \$18,800,000 as the value of the March Warrants using the Black-Scholes method and the estimated fair value of the Common Stock on the date of the issuance of the March Warrants. The discount on the March Notes was amortized over the expected term of the Notes to June 2000. For the year ended December 31, 2000, amortization of the discount was approximately \$18,800,000 and is included with the interest expense in the accompanying financial statements. Upon completion of the Company's sale of Series IV Redeemable Convertible Preferred Stock in May 2000, the principal and accrued interest on the March Notes were converted into 3,141,457 shares of Series IV Redeemable Convertible Preferred Stock. At December 31, 2002 there were 1,679,078 March Warrants outstanding.

7. STOCKHOLDERS' EQUITY

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On June 29, 2000, the Company's Board of Directors approved a reverse split of .73 shares for every one share of Common Stock then outstanding. The reverse stock split became effective on August 4, 2000.

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

The accompanying financial statements and footnotes including all share and per share amounts reflect the reverse stock split.

SERIES I, SERIES II, SERIES III AND SERIES IV REDEEMABLE CONVERTIBLE PREFERRED STOCK

The Company had four series of redeemable convertible preferred stock. A brief summary of the Series I, Series II, Series III (Series I Redeemable Convertible Preferred Stock, Series II Redeemable Convertible Preferred Stock, Series III Redeemable Convertible Preferred Stock, respectively) and Series IV Redeemable Convertible Preferred Stock follows. At December 31, 2000, 2001 and 2002, there were no shares of any series of redeemable convertible preferred stock outstanding.

In August 1998, the Company executed an agreement (Exchange Agreement) under which 8,892,912 shares of Common Stock and 41,992 shares of Series A redeemable preferred stock (Series A Redeemable Preferred Stock) were exchanged for 2,506,000 shares of Series I Redeemable Convertible Preferred Stock and 10,565,714 shares of Series II Redeemable Convertible Preferred Stock. Holders of Series A Redeemable Preferred Stock were entitled to receive preferential cumulative annual dividends payable in additional shares of Series A Redeemable Preferred Stock at the rate of 7% per annum of the stated value. Prior to the Exchange Agreement, dividends earned from January 1, 1998 through the date of the Exchange Agreement were paid to the holders of Series A Redeemable Preferred Stock. During 1997, certain preferred shareholders waived their right to a portion of earned dividends and the Company paid agreed-upon amounts through December 31, 1997. To the extent that all or any part of the Series A Redeemable Preferred Stock would have resulted in the issuance of a fractional share of the Series A Redeemable Preferred Stock, the amount of such fraction, multiplied by the stated value, was paid in cash.

On May 17, 2000, the Company issued 1,411,000 shares of Series IV Redeemable Convertible Preferred Stock for net proceeds of \$6,095,520. In addition, on May 17, 2000, the October and March Notes and accrued interest were converted into 4,535,366 shares of Series IV Redeemable Convertible Preferred Stock. The Series IV Redeemable Convertible Preferred Stock carried terms and conditions similar to the Series I, II, III Preferred Stock. The Series IV Redeemable Convertible Preferred Stock was convertible into Common Stock at a 1-for-0.73 conversion rate and automatically converted upon the closing of the Company's initial public offering (IPO). The Series IV Redeemable Convertible Preferred Stock issued on May 17, 2000 contained a beneficial conversion feature based on the estimated fair market value of common stock into which it is convertible. In accordance with EITF 98-5, the total amount of such beneficial conversion is approximately \$25,450,000. The beneficial conversion is analogous to a dividend and was recognized during 2000 when issued. Simultaneously with the closing of the Company's IPO, 30,659,957 shares of the Series I, II, III and IV Redeemable Convertible Preferred Stock then outstanding (including accrued dividends for the period August 1, 2000 to August 11, 2000) were converted into 22,381,735 shares of Common Stock.

PREFERRED STOCK

Following the conversion of the Series I, Series II, Series III and Series

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IV Redeemable Convertible Preferred Stock upon the closing of the IPO, there were 5,000,000 shares of the Company's preferred stock (Preferred Stock) authorized, none of which has been issued.

COMMON STOCK

Common stockholders are entitled to one vote per share and dividends when declared by the Company's board of directors (Board of Directors), subject to the preferential rights of any outstanding shares of Preferred Stock.

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

In its IPO on August 11, 2000, the Company sold 6,000,000 shares of Common Stock at a price of \$16.00 per share. In addition, on September 8, 2000, the underwriters of the IPO exercised their over-allotment option and purchased an additional 900,000 shares of Common Stock at a price of \$16.00 per share. The Company received proceeds of approximately \$101.4 million, net of underwriting discounts and commissions, and expenses. Simultaneously with the closing of the IPO, 30,659,957 shares of Series I, II, III and IV Redeemable Convertible Preferred Stock then outstanding (including accrued dividends for the period August 1, 2000 to August 11, 2000) were converted into 22,381,735 shares of Common Stock.

In May 2001, the Company received \$41.8 million from a private placement of 4,000,000 shares of Common Stock sold to both new and existing shareholders at a price of \$11.00 per share. The shares sold in the private placement were subsequently registered for resale.

In March 2002, the Company received \$1.0 million in proceeds from the sale of shares of Common Stock to Nycomed at the then fair market price of \$12.59 per share at the time of purchase. In June 2002, the Company received \$30.9 million in proceeds from the sale of 4.0 million shares of Common Stock in a public offering at a price of \$8.20 per share.

During 1996, 1997 and 1998, certain employees of the Company purchased 335,800, 627,070 and 32,850 shares of Common Stock, respectively, for \$0.001 per share. These shares are subject to restriction and vesting agreements that limit transferability and allow the Company to repurchase unvested shares at the original purchase price. The shares vest ratably over a four-year period that generally begins on each employee's hire date. During 2000, 2001 and 2002, the Company repurchased 22,205, 11,239 and 177 shares, respectively, of unvested Common Stock for \$0.001 per share. There were no shares of unvested Common Stock at December 31, 2002.

STOCK PLANS

In April 1998, the Company adopted the 1998 Stock Incentive Plan (the "1998 Plan"), which provides for the grant of stock options, restricted stock and other stock-based awards to employees, directors and consultants. The Board of Directors determines the term of each option, the option price, the number of shares for which each option is granted and the rate at which each option is exercisable. During 1999, the Board of Directors amended all outstanding grants to allow holders the opportunity to exercise options prior to vesting. Exercised options that are unvested are subject to repurchase by the Company at the original exercise price. Options granted under the 1998 Plan generally vest in increments over four years and have a ten year term.

In January 2000, the Board of Directors approved an amendment to the 1998 Plan to increase the number of shares available under the 1998 Plan to

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1,448,259. In May 2000, the Board of Directors approved an amendment to the 1998 Plan to increase the number of shares available under the 1998 Plan to 4,368,259. In February 2002, the Board of Directors also adopted, subject to shareholder approval which was received in May 2002, an increase in the number of shares of common stock under the 1998 Plan to 6,118,259 shares.

The Board of Directors also approved the 2000 Employee Stock Purchase Plan (the "2000 ESPP") which provides for the issuance of up to 255,500 shares of Common Stock to participating employees and the 2000 Directors Stock Option Plan which provides for the issuance of up to 250,000 shares of Common Stock to the Company's outside directors. Both the 2000 ESPP and the 2000 Directors Stock Option Plan have received stockholder approval.

In May 2001, the Board of Directors approved the 2001 Non-Officer, Non-Director Employee Stock Incentive Plan (the "2001 Plan"), which provides for the grant of nonstatutory stock options to employees, consultants and advisors, of the Company and its subsidiaries. The 2001 Plan provides for the issuance of up to 1,250,000 shares of stock. The Board of Directors administers the 2001 Plan, although it may

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

delegate its authority to one or more committees and, in limited circumstances, to one or more of the executive officers.

Prior to the Company's IPO, the Board of Directors determined the fair value of the Common Stock in its good faith judgment at each option grant date for grants under the 1998 Plan considering a number of factors including the financial and operating performance of the company, recent transactions in the Common Stock and Preferred Stock, if any, the values of similarly situated companies and the lack of marketability of Common Stock. Following the IPO, the fair value is determined based on the traded value of Common Stock.

During the period January 1, 2000 to September 30, 2000, the Company issued 2,273,624 options at exercise prices below the estimated fair value of the Common Stock as of the date of grant of such options based on the price of the Common Stock in connection with the IPO. The total deferred compensation associated with these options is approximately \$17.3 million. Included in the results of operations for the years ended December 31, 2000, 2001 and 2002 is compensation expense of approximately \$3.7 million, \$4.1 million and \$3.3 million, respectively, associated with such options. Total deferred compensation is reduced when the associated options are cancelled prior to exercise. During 2000, 2001 and 2002, cancellation of options that had not been exercised resulted in a reduction in total deferred compensation of approximately \$0.2 million, \$0.6 million and \$2.2 million, respectively. In 2002, the Company accelerated the vesting of stock options held by terminated employees in connection with their termination agreements, which resulted in \$0.5 million in non-cash stock compensation expense. The amortization and non-cash compensation expense is included in our operating expenses in the consolidated statements of operations.

The Company has elected to follow APB 25 in accounting for its stock options granted to employees because the alternative fair value accounting provided for under SFAS 123, requires the use of option valuation models that were not developed for use in valuing employee stock options. Because the exercise price of the Company's stock options generally equals the market price of the underlying stock on the date of grant, no compensation is recognized under APB 25.

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THE MEDICINES COMPANY
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

A summary of stock option activity under all the Company's stock option plans are as follows:

| | NUMBER OF SHARES | WEIGHTED AVERAGE EXERCISE PRICE PER SHARE |
|---|------------------|---|
| | ----- | ----- |
| Outstanding, December 31, 1999..... | 768,966 | \$ 1.16 |
| Granted..... | 3,080,424 | 9.80 |
| Exercised..... | (227,523) | 1.26 |
| Canceled..... | (406,713) | 1.22 |
| | ----- | ----- |
| Outstanding, December 31, 2000..... | 3,215,154 | \$ 9.43 |
| Granted..... | 2,090,000 | 11.25 |
| Exercised..... | (216,118) | 2.45 |
| Canceled..... | (329,086) | 14.94 |
| | ----- | ----- |
| Outstanding, December 31, 2001..... | 4,759,950 | \$10.16 |
| Granted..... | 1,945,700 | 12.71 |
| Exercised..... | (708,723) | 3.88 |
| Canceled..... | (1,158,270) | 12.39 |
| | ----- | ----- |
| Outstanding, December 31, 2002..... | 4,838,657 | \$11.57 |
| | ===== | ===== |
| Available for future grant at December 31, 2002..... | 1,625,377 | |
| | ===== | |

The weighted average per share fair value of options granted during 2000, 2001 and 2002 was \$10.34, \$7.17 and \$6.95, respectively. There were no options granted during 2001 and 2002 with an exercise price below the fair market value of the underlying shares on the date of grant. The weighted average fair value and exercise price of options granted during 2000 that were granted with exercise prices below fair market value were \$9.35 and \$4.68, respectively. The weighted average fair value and exercise price of options granted with exercise prices equal to fair value were \$13.19 and \$24.96, respectively, during 2000, \$7.17 and \$11.25, respectively, during 2001, and \$6.95 and \$12.71, respectively, during 2002.

The following table summarizes information about stock options from all the Company's stock option plans outstanding at December 31, 2002:

| OPTIONS OUTSTANDING | | | | | |
|--|--------------------------------------|--|---|--------------------------------------|--------------------------------------|
| | | WEIGHTED AVERAGE | | | OPTIONS VESTED |
| RANGE OF EXERCISE PRICES PER SHARE | NUMBER OUTSTANDING AT 12/31/02 | REMAINING CONTRACTUAL LIFE (YEARS) | WEIGHTED AVERAGE EXERCISE PRICE PER SHARE | NUMBER OUTSTANDING AT 12/31/02 | WEIGHTED EXERCISE PRICE PER |
| ----- | ----- | ----- | ----- | ----- | ----- |

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| | | | | | |
|------------------|-----------|-------|---------|-----------|-------|
| \$0.69- \$5.90 | 1,152,169 | 7.55 | \$ 4.24 | 721,210 | \$ |
| \$5.92- \$10.60 | 1,036,882 | 8.80 | 8.57 | 232,588 | |
| \$10.76- \$13.80 | 1,124,192 | 8.91 | 12.29 | 241,609 | 1 |
| \$14.88- \$18.10 | 1,072,900 | 9.45 | 16.03 | 118,336 | 1 |
| \$21.50- \$30.00 | 452,514 | 7.90 | 24.78 | 251,124 | 2 |
| | ----- | ---- | ----- | ----- | --- |
| | 4,838,657 | 8.59 | \$11.57 | 1,564,867 | \$1 |
| | ===== | ===== | ===== | ===== | ===== |

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

COMMON STOCK RESERVED FOR FUTURE ISSUANCE

At December 31, 2002, there were 9,047,383 shares of Common Stock reserved for future issuance under the 2000 ESPP, for conversion of the October Warrants and March Warrants and for grants made under the 1998 Plan, the 2001 Plan and the 2000 Directors Stock Option Plan.

8. NET LOSS AND UNAUDITED PRO FORMA NET LOSS PER SHARE

The following table sets forth the computation of basic and diluted and unaudited pro forma basic and diluted net loss per share for the respective periods. The unaudited pro forma basic and diluted net loss per share for 2000 gives effect to the conversion of the Series I, II, III and IV Redeemable Convertible Preferred Stock and the October Notes and March Notes and accrued interest as if converted at the date of original issuance.

| | YEAR ENDED DECEMBER 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2000 | 2001 | 2002 |
| | ----- | ----- | ----- |
| BASIC AND DILUTED | | | |
| Net loss..... | \$ (71,292,170) | \$ (54,883,648) | \$ (45,831,148) |
| Dividends and accretion on redeemable convertible preferred stock..... | (30,342,988) | -- | -- |
| Net loss attributable to common stockholders..... | \$ (101,635,158) | \$ (54,883,648) | \$ (45,831,148) |
| | ===== | ===== | ===== |
| Weighted average common shares outstanding..... | 12,225,537 | 32,987,766 | 37,223,342 |
| Less: unvested restricted common shares outstanding..... | (166,262) | (61,798) | (13,411) |
| Weighted average common shares used to compute net loss per share..... | 12,059,275 | 32,925,968 | 37,209,931 |
| | ===== | ===== | ===== |
| Basic and diluted net loss per share... | \$ (8.43) | \$ (1.67) | \$ (1.23) |
| | ===== | ===== | ===== |
| UNAUDITED PRO FORMA BASIC AND DILUTED | | | |
| Net loss..... | \$ (71,292,170) | \$ (54,883,648) | \$ (45,831,148) |
| Interest expense on convertible notes..... | 19,390,414 | -- | -- |
| | ----- | ----- | ----- |

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| | | | |
|---|-----------------|-----------------|-----------------|
| Net loss used to compute pro forma net loss per share..... | \$ (51,901,756) | \$ (54,883,648) | \$ (45,831,148) |
| | ===== | ===== | ===== |
| Weighted average common shares used to compute net loss per share..... | 12,059,275 | 32,925,968 | 37,209,931 |
| Weighted average number of common shares assuming the conversion of all redeemable convertible preferred stock and convertible notes and accrued interest at the date of original issuance..... | 12,659,800 | -- | -- |
| | ----- | ----- | ----- |
| Weighted average common shares used to compute pro forma net loss per share..... | 24,719,075 | 32,925,968 | 37,209,931 |
| | ===== | ===== | ===== |
| Unaudited pro forma basic and diluted pro forma net loss per share..... | \$ (2.10) | \$ (1.67) | \$ (1.23) |
| | ===== | ===== | ===== |

Options to purchase 3,215,154, 4,759,950 and 4,838,657 shares of Common Stock have not been included in the computation of diluted net loss per share and pro forma net loss per share for the years ended December 31, 2000, 2001 and 2002, respectively, as their effects would have been antidilutive. Warrants to purchase 3,269,564, 3,156,073 and 2,373,975 shares of Common Stock were also excluded

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

from the computation of diluted net loss per share and pro forma net loss per share for the years ended December 31, 2000, 2001 and 2002, respectively, as their effect would be antidilutive.

9. INCOME TAXES

The significant components of the Company's deferred tax assets are as follows:

| | DECEMBER 31, | |
|---------------------------------------|---------------|---------------|
| | 2001 | 2002 |
| | ----- | ----- |
| Deferred tax assets: | | |
| Net operating loss carryforwards..... | \$ 68,689,000 | \$ 86,128,000 |
| Research and development credit..... | 5,062,000 | 7,556,000 |
| Intangible assets..... | 998,000 | 886,000 |
| Other..... | 491,000 | 1,543,000 |
| | ----- | ----- |
| | 75,240,000 | 96,113,000 |
| Valuation allowance..... | (75,240,000) | (96,113,000) |
| | ----- | ----- |
| Net deferred tax assets..... | \$ -- | \$ -- |
| | ===== | ===== |

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The Company has increased its valuation allowance by \$20,873,000 in 2002 to provide a full valuation allowance for deferred tax assets since the realization of these future benefits is not considered more likely than not. The amount of the deferred tax asset considered realizable is subject to change based on estimates of future taxable income during the carryforward period. If the Company achieves profitability, these deferred tax assets would be available to offset future income taxes. The future utilization of net operating losses and credits may be subject to limitation based upon changes in ownership under the rules of the Internal Revenue Code. The Company has not yet determined the effect of these rules on the utilization of its net operating loss and credit carryforwards. The Company assesses the need for the valuation allowance at each balance sheet date based on all available evidence.

At December 31, 2002, the Company had federal net operating loss carryforwards available to reduce taxable income, and federal research and development tax credit carryforwards available to reduce future tax liabilities, which expire approximately as follows:

| YEAR OF EXPIRATION | FEDERAL NET OPERATING LOSS CARRYFORWARDS | FEDERAL RESEARCH AND DEVELOPMENT TAX CREDIT CARRYFORWARDS |
|--------------------|--|--|
| 2011..... | \$ 929,000 | \$ 22,000 |
| 2012..... | 15,260,000 | 527,000 |
| 2018..... | 27,876,000 | 425,000 |
| 2019..... | 33,800,000 | 1,000,000 |
| 2020..... | 45,335,000 | 1,176,000 |
| 2021..... | 49,700,000 | 1,000,000 |
| 2022..... | 45,500,000 | 2,787,000 |
| | \$218,400,000 | \$6,937,000 |
| | ===== | ===== |

For state tax purposes, net operating loss carryforwards of approximately \$196,000,000 expire in the years 2003 through 2010. State research and development tax credit carryforwards are approximately \$620,000.

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

10. LICENSE AGREEMENTS

ANGIOMAX (R)

In March 1997, the Company entered into an agreement with Biogen, Inc. for the license of the anticoagulant pharmaceutical bivalirudin, which the Company has developed as Angiomax. Under the terms of the agreement, the Company acquired exclusive worldwide rights to the technology, patents, trademarks, inventories and know-how related to Angiomax. In exchange for the license, the Company paid \$2.0 million on the closing date and is obligated to pay up to an additional \$8.0 million upon reaching certain Angiomax sales milestones, which are the first commercial sales of Angiomax for the treatment of acute myocardial infarction in the United States and Europe. In addition, the Company will pay royalties on future sales of Angiomax and on any sublicense royalties on a country-by-country basis earned until the later of (1) 12 years after the date

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of the first commercial sale of the product in a country or (2) the date on which the product or its manufacture, use or sale is no longer covered by a valid claim of the licensed patent rights in such country. Under the terms of the agreement, the royalty rate due to Biogen on sales increases with growth in annual sales of Angiomax. The agreement also stipulates that the Company use commercially reasonable efforts to meet certain milestones related to the development and commercialization of Angiomax, including expending at least \$20 million for certain development and commercialization activities, which the Company met in 1998. The license and rights under the agreement remain in force until the Company's obligation to pay royalties ceases. Either party may terminate the agreement for material breach by the other party, if the material breach is not cured within 90 days after written notice. In addition, the Company may terminate the agreement for any reason upon 90 days prior written notice. The Company recognized royalty expense under the agreement of \$1.1 million in 2001, and \$2.8 million in 2002 for Angiomax sales.

CLEVIDIPINE

In March 2002, the Company entered into a study and exclusive option agreement with AstraZeneca PLC relating to the further study, licensing, development and commercialization of the intravenous blood pressure control pharmaceutical, clevidipine. Under the terms of the agreement, the Company agreed to conduct a pilot study of clevidipine, which has begun. The agreement provides that upon the conclusion of the pilot study within 15 months of the date AstraZeneca provided samples of clevidipine to the Company, the Company may acquire, and if the results of the pilot study meet or exceed a benchmark set forth in the agreement AstraZeneca may require the Company to acquire, exclusive worldwide rights (except for Japan) to the know-how, patents and trademarks relating to clevidipine. If we do not complete the pilot study by the end of such 15-month period, AstraZeneca may have the right to terminate the agreement. If the Company licenses the product, it plans to develop clevidipine as a short acting blood pressure control agent for use in hospital setting. In exchange for the license, the Company will pay \$1.0 million upon entering into the license and up to an additional \$5.0 million upon reaching certain regulatory milestones. In addition, the Company will be obligated to pay royalties on a country-by-country basis on future annual sales of clevidipine, and on any sublicense royalties earned, until the later of (1) the duration of the licensed patent rights which are necessary to manufacture, use or sell clevidipine in a country or (2) ten years from our first commercial sale of clevidipine in such country. The licenses and rights under the agreement remain in force until the Company ceases selling clevidipine in any country or the agreement is otherwise terminated. The Company may terminate the agreement upon 30 days written notice, unless AstraZeneca, within 20 days of having received the Company's notice, requests that the Company enter into good faith discussions to redress its concerns. If the Company cannot reach a mutually agreeable solution with AstraZeneca within three months of the commencement of such discussions, the Company may then terminate the agreement upon 90 days written notice. Either party may terminate the agreement for material breach upon 60 days prior

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

written notice, if the breach is not cured within such 60 days. The Company has had made no payments to date under this agreement.

11. STRATEGIC ALLIANCES AND RELATED PARTIES

UCB

In December 1999, the Company entered into a commercial supply agreement

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with UCB Bioproducts S.A. ("UCB") for the development and supply the Angiomax bulk drug substance. Under the terms of the commercial supply agreement, UCB completed development of a modified production process known as the "Chemilog" process and filed an amendment in 2001 to its drug master file for regulatory approval of the Chemilog process by the FDA. In addition, UCB manufactured two validation batches of Angiomax bulk drug substance using the Chemilog process in 2001, with a third validation batch completed in January 2002. In addition, the Company has agreed to purchase a substantial portion of its Angiomax bulk drug product from UCB at agreed upon prices for a period of seven years from the date of the first commercial sale of Angiomax produced using the Chemilog process. Following the expiration of the agreement, or if the Company terminates the agreement prior to its expiration, UCB will transfer the development technology to the Company. If the Company engages a third party to manufacture Angiomax using this technology, the Company will be obligated to pay UCB a royalty based on the amount paid by the Company to the third-party manufacturer.

During 2000, 2001 and 2002 the Company recorded \$14.6 million, \$19.4 million and \$9.7 million, respectively, in costs related to UCB's production of Angiomax bulk drug substance and Angiomax related development activities, of which \$12.8 million, \$4.8 million and \$6.8 million were expensed as research and development in 2000, 2001 and 2002, respectively, as FDA approval of Angiomax or the related manufacturing processes had not been received. In addition, \$1.5 million was also expensed in 2001 related to cancellation of a contract commitment with UCB. The Company has committed to purchase \$9.7 million of additional Angiomax bulk drug substance produced by the Chemilog process in 2003.

PHARMABIO

In August 1996, the Company entered into a strategic alliance with one of its stockholders, PharmaBio Development Inc. ("PharmaBio"), a wholly owned subsidiary of Quintiles Transnational Corporation ("Quintiles"). Under the terms of the strategic alliance agreement, PharmaBio and any of its affiliates who work on the Company's projects will, at no cost to the Company, review and evaluate, jointly with the Company, development programs designed by the Company related to potential or actual product acquisitions. The purpose of this collaboration is to optimize the duration, cost, specifications and quality aspects of such programs. PharmaBio and its affiliates have also agreed to perform other services with respect to the Company's products, including clinical and non-clinical development services, project management, project implementation, pharmacoeconomic services, regulatory affairs and post marketing surveillance services and statistical programming, data processing and data management services pursuant to work orders agreed to by the Company and PharmaBio from time to time. Through December 31, 2002, the Company has entered into approximately 46 work orders with PharmaBio and has paid PharmaBio a total of \$14.4 million. During 2000, 2001, and 2002, expenses incurred for such services were approximately \$2.3 million, \$2.3 million, and \$1.1 million respectively, of which approximately \$13,000 was recorded in accounts payable and accrued expenses at December 31, 2002.

INNOVEX

In January 1997, the Company entered into a consulting agreement with Innovex, Inc. ("Innovex"), a subsidiary of Quintiles, which was subsequently superseded by a consulting agreement executed with Innovex in December 1998. Pursuant to the terms of the agreement, Innovex provided the Company with

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consulting services with respect to pharmaceutical marketing and sales. Since December 1997, the Company has also entered into various clinical services agreements with Innovex pursuant to which Innovex has provided project management, clinical monitoring, site management, medical monitoring, regulatory affairs, data management and quality assurance services with respect to clinical trials of Angiomax. None of the clinical services agreements is currently outstanding. Through December 31, 2001, the Company has paid Innovex \$1.8 million under these agreements. The Company did not make any payments to Innovex in 2002 under these agreements.

In December 2000, the Company signed a master services agreement and a work order with Innovex under which Innovex agreed to provide contract sales, marketing and commercialization services relating to Angiomax. Under the master services agreement and the Angiomax work order, Innovex was to provide a sales force of up to 52 representatives, a sales territory management system and operational support for the launch of Angiomax. The Company provided the marketing plan and marketing materials for the sales force and other sales and marketing support and direction for the sales force. For Innovex services, the Company agreed to pay a daily fee for each day worked by the members of the Innovex sales force. The Company was also responsible for reimbursing Innovex for expenses incurred in providing its services and for the incentive compensation paid to the sales force. The Company had the right to terminate the work order and the master services agreement at any time upon 90 days prior written notice and could hire members of the sales force, potentially incurring additional fees to Innovex. In June 2001, the Company notified Innovex of its decision to terminate the agreement with Innovex, and in October, the Company hired most of the Innovex sales representatives. Through December 31, 2002, the Company has paid Innovex \$7.0 million under the master services agreement and work order.

During 2000, 2001 and 2002, total expenses incurred for services provided by Innovex were approximately \$1.7 million, \$5.6 million and \$0.0, respectively, of which approximately \$440,000, \$275,000 and \$0.0 were recorded in accounts payable and accrued expenses at December 31, 2000, 2001 and 2002, respectively.

STACK PHARMACEUTICALS

In 2000, the Company entered into an agreement, with Stack Pharmaceuticals Inc. (SPI), an entity controlled by David M. Stack, then one of the Company's senior vice presidents. Pursuant to the terms of this agreement, SPI performed infrastructure services for the Company, which included providing office facilities, equipment and supplies, and such consulting, advisory and related services for the Company as was agreed upon from time to time. For the infrastructure services, the Company agreed to pay SPI a service fee of \$20,100 per month. From January 2000 through March 2000, SPI provided the Company with consulting services under a consulting agreement that expired on March 31, 2000. In November 2001, the Company terminated its agreement with SPI when David M. Stack became President and Chief Executive Officer of the Company. As part of the termination agreement, the Company assumed SPI's facility lease in Parsippany, New Jersey and acquired all its furniture and equipment for approximately \$70,000. Through December 31, 2001, the Company had paid SPI \$711,000 under these agreements. The Company did not make any payments to SPI in 2002.

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

12. COMMITMENTS AND CONTINGENCIES

The Company leases its facilities in Parsippany, New Jersey and Cambridge,

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Massachusetts, and certain office furniture and equipment at those facilities under operating leases. The leases for the Parsippany and Cambridge facilities expire in January 2013 and August 2003, respectively.

Future annual minimum payments under all non-cancelable leases

| | | |
|---|----|-------------|
| 2003..... | \$ | 808,000 |
| 2004..... | | 526,000 |
| 2005..... | | 492,000 |
| 2006..... | | 495,000 |
| 2007..... | | 503,000 |
| Later years..... | | 2,689,000 |
| | | ----- |
| TOTAL FUTURE ANNUAL MINIMUM PAYMENTS..... | | \$5,513,000 |
| | | ===== |

Rent expense was approximately \$504,000 \$634,000 and \$685,000 in 2000, 2001 and 2002, respectively.

In addition to amounts accrued or payable as of December 31, 2002, the Company has commitments to make payments to UCB Bioproducts of a total of \$9.7 million during 2003 for Angiomax bulk drug substance to be produced using the Chemilog process. The Company also has \$1.9 million in contractual commitments for 2003 related to research and development activities.

The Company is involved in ordinary and routine matters and litigation incidental to its business. There are no such matters pending that the Company expects to be material in relation to its financial condition or results of operations.

13. EMPLOYEE BENEFIT PLAN

The Company has an employee savings and retirement plan which is qualified under Section 401(k) of the Internal Revenue Code. The Company's employees may elect to reduce their current compensation up to the statutorily prescribed limit and have the amount of such reduction contributed to the 401(k) plan. The Company may make matching or additional contributions to the 401(k) plan in amounts to be determined annually by the Board of Directors. The Company has not made any matching or additional contributions to date.

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THE MEDICINES COMPANY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

14. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

The following table presents selected quarterly financial data for the years ended December 31, 2001 and 2002.

| THREE MONTHS ENDED | | | | | |
|--------------------|------------------|-------------------|------------------|------------------|------------------|
| MAR. 31, 2001 | JUNE 30, 2001 | SEPT. 30, 2001 | DEC. 31, 2001 | MAR. 31, 2002 | JUNE 30, 2002 |
| | | | | | |

(IN THOUSANDS, EXCEPT PER SHARE DATA)

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| | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|----|
| Net revenue..... | \$ 1,861 | \$ 2,048 | \$ 3,526 | \$ 6,813 | \$ 7,715 | \$ 7,156 | \$ |
| Cost of sales..... | 332 | 319 | 565 | 894 | 1,085 | 1,647 | |
| Total operating expenses... | 21,987 | 18,196 | 15,623 | 15,639 | 19,726 | 20,439 | |
| Net loss..... | (19,056) | (16,003) | (11,309) | (8,516) | (11,641) | (13,141) | |
| Net loss attributable to common stockholders..... | (19,056) | (16,003) | (11,309) | (8,516) | (11,641) | (13,141) | |
| Basic and diluted net loss attributable to common stockholders per common share..... | \$ (0.63) | \$ (0.49) | \$ (0.33) | \$ (0.25) | \$ (0.34) | \$ (0.37) | \$ |
| Pro forma basic and diluted net loss attributable to common stockholders per common share..... | (0.63) | (0.49) | (0.33) | (0.25) | (0.34) | (0.37) | |
| Market Price | | | | | | | |
| High..... | \$ 20.48 | \$ 22.05 | \$ 22.20 | \$ 12.15 | \$ 14.81 | \$ 14.33 | \$ |
| Low..... | \$ 8.75 | \$ 9.10 | \$ 4.52 | \$ 4.81 | \$ 9.86 | \$ 7.40 | \$ |

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[THE MEDICINES COMPANY LOGO]

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the costs and expenses, other than the underwriting discount, payable by the Registrant in connection with the sale of Common Stock being registered. All amounts are estimated except the SEC registration fee and the NASD filing fee.

| | AMOUNT TO BE PAID ----- |
|-----------------------------------|-------------------------------|
| SEC registration fee..... | \$ 7,060 |
| Printing and mailing..... | 125,000 |
| Legal fees and expenses..... | 270,000 |
| Accounting fees and expenses..... | 35,000 |
| NASD filing fee..... | 9,227 |
| Miscellaneous..... | 3,713 |
| | ----- |
| Total..... | \$450,000 ===== |

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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Article SEVENTH of our Third Amended and Restated Certificate of Incorporation, as amended to date (the "Charter") eliminates the personal liability of directors to the fullest extent permitted by Section 102(b)(7) of the Delaware General Corporation Law and provides that no director of our company shall be personally liable for any monetary damages for any breach of fiduciary duty as a director, except to the extent that the Delaware General Corporation Law statute prohibits the elimination or limitation of liability of directors for breach of fiduciary duty.

Article EIGHTH of our Charter provides that each of our directors and officers (a) shall be indemnified by us against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement incurred in connection with any litigation or other legal proceeding (other than an action by or in the right of us) threatened or brought against him by virtue of the fact that he is, or has agreed to serve as, a director or officer of our company or is serving in the position of director, officer, partner, employee or trustee of another corporation, partnership, joint venture trust or other enterprise on our behalf, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he had no reasonable cause to believe his conduct was unlawful and (b) shall be indemnified by us against all expenses (including attorneys' fees) and amounts paid in settlement incurred in connection with any action by or in the right of us brought against him by virtue of the fact that he is, or has agreed to serve as, a director or officer of our company or is serving in the position of director, officer, partner, employee or trustee of another corporation, partnership, joint venture trust or other enterprise on our behalf, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that a director or officer has been successful, on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, he is required to be indemnified by us against all expenses (including attorneys' fees) incurred in connection therewith. Expenses shall be advanced to a director or officer at his request, provided that he undertakes to repay the amount advanced if it is ultimately determined that he is not entitled to indemnification for such expenses.

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Indemnification is required to be made unless we determine that the applicable standard of conduct required for indemnification has not been met. In the event of a determination by us that the director or officer did not meet the applicable standard of conduct required for indemnification or if we fail to make an indemnification payment within 60 days after such payment is claimed by such person, such person is permitted to petition the court to make an independent determination as to whether such person is entitled to indemnification. As a condition precedent to the right of indemnification, the director or officer must give us notice of the action for which indemnity is sought and we have the right to participate in such action or assume the defense thereof.

Article EIGHTH of our Charter further provides that the indemnification provided therein is not exclusive, and provides that in the event that the Delaware General Corporation Law statute is amended to expand the indemnification permitted to our directors or officers we must indemnify those persons to the full extent permitted by such law as so amended.

Section 145 of the Delaware General Corporation Law provides that a

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corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal proceeding, if such person has no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that such indemnification is proper under the circumstances.

We maintain a general liability insurance policy which covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In the underwriting agreement we will enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended (the "Act"), against certain liabilities.

At present, there is no pending litigation or proceeding involving any director, officer, employee or agent as to which indemnification will be required or permitted under the Charter. The Registrant is not aware of any threatened litigation or proceeding that may result in a claim for such indemnification.

ITEM 16. EXHIBITS.

See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this registration statement on Form S-3, which Exhibit Index is incorporated herein by reference.

ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification to liabilities arising under the Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the Delaware General Corporation Law, the Certificate of Incorporation of the Registrant, the Underwriting Agreement, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is

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against public policy as expressed in the Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any

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action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, the Registrant will, unless in the opinion of counsel the matter has been settled by the controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Act, the information omitted from the form of Prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of Prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Act, each post-effective amendment that contains a form of Prospectus shall be deemed to be a new Registration Statement relating to the securities offered therein and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 1 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Parsippany, state of New Jersey, on March 7, 2003.

THE MEDICINES COMPANY

By: /s/ CLIVE A. MEANWELL

Clive A. Meanwell
Executive Chairman

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 1 to the registration statement has been signed by the following persons in the capacities indicated on March 7, 2003:

| SIGNATURE ----- | TITLE(S) ----- |
|--|--|
| <p style="text-align: center;">/s/ CLIVE A. MEANWELL ----- Clive A. Meanwell</p> | <p>Executive Chairman and Chairman of the Board of Directors (Principal Executive Officer)</p> |
| <p>* -----</p> | <p>Chief Executive Officer, President and Director (Principal Executive Officer)</p> |

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David M. Stack

*

Chief Financial Officer (Principal Financial and Accounting Officer)

Steven H. Koehler

*

Director

Leonard Bell

*

Director

Stewart J. Hen

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SIGNATURE

TITLE(S)

*

Director

M. Fazle Husain

*

Director

T. Scott Johnson

*

Director

Armin M. Kessler

*

Director

Nicholas J. Lowcock

*

Director

James E. Thomas

*By: /s/ CLIVE A. MEANWELL

Clive A. Meanwell
Attorney-in-fact

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EXHIBIT INDEX

NUMBER

DESCRIPTION

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- 1.1*** Form of Underwriting Agreement
- 3.1* Third Amended and Restated Certificate of Incorporation of the registrant
- 3.2* Amended and Restated By-laws of the registrant
- 5.1 Opinion of Hale and Dorr LLP
- 23.1 Consent of Ernst & Young LLP, Independent Auditors
- 23.2 Consent of Hale and Dorr LLP (included in Exhibit 5.1)
- 24.1** Powers of Attorney

* Incorporated by reference from the exhibits to the registration statement on Form S-1 (registration no. 333-37404).

** Previously filed.

*** To be filed by amendment.