

ARENA PHARMACEUTICALS INC
Form S-3/A
June 18, 2004

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As filed with the Securities and Exchange Commission on June 18, 2004

Registration No. 333-115670

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 1

TO

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ARENA PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or other jurisdiction of incorporation or
organization)

23-2908305

(I.R.S. Employer
Identification Number)

**6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200**

(Address, Including Zip Code and Telephone Number, Including
Area Code, of Registrant's Principal Executive Offices)

**Steven W. Spector, Esq.
Vice President and General Counsel
6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200**

(Name, Address, Including Zip Code and Telephone Number, Including
Area Code, of Agent for Service)

Approximate date of commencement of proposed sale to the public: As soon as practical 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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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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 of the same offering. o

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

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

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 that 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 Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

Subject to Completion, dated June 18, 2004

PROSPECTUS

\$50,000,000

ARENA PHARMACEUTICALS, INC.

Common Stock

Our common stock is traded on the Nasdaq National Market under the symbol "ARNA". On June 16, 2004, the closing price of our common stock was \$5.39.

This prospectus and the accompanying prospectus supplement will allow us to sell common stock over time in one or more offerings up to a maximum aggregate initial offering price of \$50,000,000. Each time we offer shares, we will provide you with a supplement to this prospectus. You should read this prospectus, the information incorporated by reference in this prospectus and any prospectus supplement carefully before you invest.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 2 AND AS UPDATED IN ANY FUTURE FILINGS MADE WITH THE SECURITIES AND EXCHANGE COMMISSION THAT ARE INCORPORATED BY REFERENCE IN THIS PROSPECTUS.

THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement. This prospectus may not be used to sell any of the common stock unless accompanied by a prospectus supplement.

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

The date of this prospectus is [], 2004

TABLE OF CONTENTS

| | |
|---|----|
| ABOUT THIS PROSPECTUS | i |
| SUMMARY | 1 |
| RISK FACTORS | 2 |
| FORWARD-LOOKING STATEMENTS | 15 |
| USE OF PROCEEDS | 15 |
| DESCRIPTION OF CAPITAL STOCK | 16 |
| PLAN OF DISTRIBUTION | 22 |
| LEGAL MATTERS | 23 |
| EXPERTS | 23 |
| WHERE YOU CAN FIND MORE INFORMATION | 24 |
| INCORPORATION OF CERTAIN INFORMATION BY REFERENCE | 24 |

You should rely only on the information contained or incorporated by reference into this prospectus or any applicable prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of the securities to be sold under this prospectus in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date on the front cover of this prospectus or the prospectus supplement, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a "shelf" registration process. Under this shelf registration process, we may sell common stock in one or more offerings up to a total dollar amount of \$50,000,000. Each time we sell any common stock under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of that offering. We may also add, update or change in a prospectus supplement any of the information contained in this prospectus or in documents we have incorporated by reference into this prospectus. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. You should carefully read both this prospectus and the applicable prospectus supplement together with the additional information described under "Where You Can Find More Information" before buying common stock in this offering.

SUMMARY

Arena Pharmaceuticals, Inc.

We are a biopharmaceutical company that discovers and develops drugs that act on an important class of drug targets called G protein-coupled receptors, or GPCRs. We use our Constitutively Activated Receptor Technology, or CART, Melanophore technology and other proprietary technologies to identify small chemical molecules that may lead to new drugs in four major therapeutic areas: metabolic diseases, cardiovascular diseases, central nervous system disorders and inflammatory diseases. We have not received regulatory approval for, or generated commercial revenues from, any of our product candidates. We initiated our first human studies on APD356, one of our internally discovered compounds for metabolic disease and obesity, in February 2004.

In addition to our internal discovery and development efforts, we have entered into research and development collaborations with several pharmaceutical and biotechnology companies, including Merck & Co., Inc., Fujisawa Pharmaceutical Co., Ltd., and Taisho Pharmaceutical Co., Ltd.

The pharmaceutical marketplace in which we operate includes many large, well-established companies competing with us to develop treatments for the same diseases and disorders. See "Risk Factors" below.

Arena Pharmaceuticals® and Arena® are registered service marks of the company. CART is an unregistered service mark of the company. Our corporate offices are located at 6166 Nancy Ridge Drive, San Diego, California 92121. Our telephone number is (858) 453-7200. Our website address is www.arenapharm.com. Information contained in our website does not constitute part of this prospectus.

Unless otherwise specified or required by context, references in this prospectus to "we," "us," "our" and "Arena" refer to Arena Pharmaceuticals, Inc. and its subsidiaries on a consolidated basis.

We may offer shares of our common stock with a total value of up to \$50 million from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of offering. Each time we sell any common stock under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

We may sell the common stock directly to or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of common stock. If we do offer common stock through underwriters or agents, we will include in the applicable prospectus supplement:

the names of those underwriters or agents;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

We may issue shares of our common stock from time to time. Holders of our common stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval. Subject to any preferential rights of any outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any outstanding preferred stock. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights.

RISK FACTORS

An investment in our stock involves a high degree of risk. Investors evaluating us should carefully consider the factors described below and all other information contained in this prospectus and in our other public filings before making investment decisions regarding our stock. Any of the following factors could materially harm our business, operating results and financial condition. Additional factors and uncertainties not currently known to us or that we currently consider immaterial could also harm our business, operating results and financial condition. Investors could lose all or part of their investment as a result of these factors.

If APD356 fails in clinical trials, we may significantly curtail some of our activities

We initiated our first clinical trial on an internally discovered compound, which we call APD356, in February 2004. This trial is being conducted at a contract Phase 1 unit in the United Kingdom. If APD356 is found to be unsafe in, or not tolerated by, the people we test in our Phase 1 clinical trial, we may not be able to raise new financing or generate significant revenue in the next year or two. Without such funding, we would need to re-evaluate our strategy of moving multiple drug development programs forward while at the same time maintaining our research and discovery capabilities. Based on such evaluation, we may need to significantly curtail some of our current and planned programs and expenditures. We do not know what programs, if any, we would need to curtail, but we believe narrowing the breadth of our pipeline would reduce our opportunity for success.

We have a history of losses and expect our losses to continue

We had losses of \$12.5 million for the three months ended March 31, 2004, and we had an accumulated deficit of \$120.0 million from our inception in April 1997 through March 31, 2004. Our losses have resulted in large part from the significant research and development expenditures we have made in seeking to identify and validate new drug targets and compounds that could become marketed drugs.

We expect our operating expenses over the next several years will be significant and that we will continue to have significant operating losses in the near-term, even if we or our collaborators are successful in advancing compounds discovered using our technologies.

We will need additional funds in the future for our research and development, and we may not be able to obtain such funds

We cannot sustain our current operating plan for more than the next two or three years unless we obtain additional financing from collaborators or investors. In addition, it takes potentially hundreds of millions of dollars, which is substantially more cash than what we currently have, to successfully develop a compound into a marketed drug. Financing may not be available, or may not be available on terms that are favorable, to us.

We do not believe that we can currently license our programs or technologies on terms that would significantly reduce the need for us to obtain additional financing from investors. Our strategy is to continue developing these programs and move them towards or into clinical development so that we can achieve better financial terms with a collaborator and, therefore, be able to continue our drug discovery efforts at their current levels. If our research and development efforts are not successful in the next one or two years, and if we do not receive new financing from investors, we may need to license our programs on financial terms that are unfavorable to us.

Our stock has not performed as well as the stock of many of our peers for some time, and we presently are aware of only a small number of securities analysts covering our stock, which means limited third-party information is available to investors. We believe that institutional and other investors

value third-party information in making investment decisions regarding our stock. These factors, and many others, may affect our ability to access capital markets.

If adequate funds are not available to us, we will be required to significantly curtail or eliminate one or more of our drug discovery or development programs, or to completely discontinue our operations.

Our largest stockholders may take actions that are contrary to your interests including selling their stock

A small number of our stockholders hold a significant amount of our outstanding stock. These stockholders' interests could differ from the interests of other stockholders, and they could be in a position to affect us in a way that is detrimental to the interests of other stockholders. Sales by these stockholders of our common stock could adversely affect the market price for our stock. In addition, their actions and votes would be important, and possibly determinative, in the event we consider a transaction that requires stockholder approval or in the event a third party makes a tender offer or a hostile take-over offer for outstanding shares.

On January 23, 2004, Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., BVF Investments, L.L.C., BVF Partners L.P., BVF Inc. (collectively, "BVF") and Investment 10, L.L.C. (collectively with BVF, the "BVF Stockholders") reported that they own or control approximately 12.2% of our outstanding common stock. We entered into an agreement with the BVF Stockholders on January 17, 2003, when the BVF Stockholders held approximately 27% of our outstanding common stock, to allow us to pursue our strategic objectives, retain key management and scientific personnel, and protect the interests of stockholders in general. This agreement provides that the BVF Stockholders will not, on their own or as part of a larger group, (i) acquire any of our stock or assets, (ii) solicit proxies or submit stockholder proposals except as provided in such agreement, or (iii) engage in any of the actions set forth in paragraphs (a) through (j) of Item 4 of Schedule 13D, including actions that relate to or would result in any person acquiring or disposing of our securities, any change to our board of directors or management, or a material change to our business or corporate structure. This agreement also provides that the BVF Stockholders will vote for director nominees recommended by our board of directors and on certain other matters as recommended by our board of directors. Under the stockholders agreement, the BVF Stockholders received, among other things, (a) the right to have their designee appointed to our board of directors, and, thereafter, nominated for election at stockholders meetings, (b) the right to have another designee serve as an observer of meetings of our board of directors, and (c) the right to call a special meeting under certain circumstances. These provisions under the stockholders agreement terminate on December 31, 2004, or earlier if the BVF Stockholders and certain related parties beneficially own less than 1,914,603 shares of our common stock.

We believe that the BVF Stockholders favor a strategic direction for the company that is different than the one favored by management. The BVF Stockholders have recently sold a large number of our shares. Further sales by the BVF Stockholders may have an adverse effect on the near-term market price for our stock.

All of our programs are in the early stage of drug discovery and development, and if problems arise in the testing or approval process, our drug development efforts may be delayed or may not be successful

We are transitioning from primarily a research company to a research and development company. The research and development of new medicines is highly uncertain and subject to significant risks. Our most advanced program, APD356, is in the early stages of drug development. We do not expect any drugs resulting from our research to be commercially available for many years, if ever.

It typically takes many years to conduct preclinical and clinical trials and failure often occurs. Interim results of trials do not assure final results, and acceptable results in early trials may not be repeated in later trials.

In the course of our discovery, preclinical testing and clinical trials, we will rely on third parties, including laboratories, investigators and manufacturers, to perform critical services for us. For example, we are relying on a European-based third party to conduct our Phase 1 clinical trials for APD356. This organization is responsible for many aspects of these trials, including finding and enrolling volunteers for testing and administering the testing. Another example is that we are currently relying on a contract manufacturer to make certain compounds for us. These third parties may not be available when we need them or, if they are available, may not perform their services in a timely or acceptable manner. As a result of our dependence on third parties, we may face delays or failures outside of our direct control. These risks also apply to the development activities of our collaborators, and we do not expect any drugs resulting from our collaborators' research and development efforts to be commercially available for many years, if ever.

If we are unable to obtain regulatory approval to develop and market products in the United States and foreign jurisdictions, we will not be able to commercialize products resulting from our research.

Governmental authorities in the U.S. heavily regulate the testing, development, manufacturing, approval and marketing of drugs. Any compound we are testing may not prove to be safe or effective or meet all of the applicable regulatory requirements. We may elect to, or a regulatory agency may require us to, discontinue development of a compound at any time for scientific, regulatory, commercial or other reasons. These regulations are complex and change from time to time.

Governments in other countries have similar requirements for the testing, development, manufacturing, approval and marketing of drugs, including in the United Kingdom (the "UK"), and, as in the U.S., the requirements are complex and change from time to time. We are currently conducting a clinical trial on APD356 in the UK. In the European Union (the "EU"), of which the UK is a member state, a new clinical trials directive (or "CTD") went into effect on May 1, 2004. Under this new directive, Phase 1 clinical trials in healthy subjects, as well as later clinical trials, require the filing of a clinical trials authorization (or "CTA") to the Medicines and Healthcare products Regulatory Agency (the "MHRA") (the equivalent of the FDA in the UK). This directive also imposes new inspection requirements for clinical trials and for facilities manufacturing clinical trials materials.

Our current study on APD356 is subject to the terms of the directive. We filed a clinical trials exemption (or "CTX") and have received approval from the MHRA. After May 1, 2004, CTX's were converted to CTA's under the new system. If we decide to conduct additional clinical trials in the EU, we will need to amend the CTA to include information on the new trial. We have filed an investigational new drug application (an "IND") with the FDA, and currently intend to conduct our next clinical trial, if any, in the U.S.

Completion of clinical trials may take several years and failure may occur at any stage of testing. The length of time required varies substantially according to the type, complexity and intended use of the product candidate. Interim results of a preclinical study or clinical trial do not necessarily predict final results, and acceptable results in early trials may not be repeated in later trials. For example, a drug candidate that is successful at the preclinical level may cause harmful or dangerous side effects when tested at the clinical level. Our rate of commencement and completion of clinical trials may be delayed by many factors, including:

our inability to manufacture sufficient quantities of materials for use in clinical trials;

variability in the number and types of patients available for each study;

difficulty in maintaining contact with patients after treatment, resulting in incomplete data;

unforeseen safety issues or side effects;

poor or unanticipated lack of effectiveness of products during the clinical trials; or

regulatory delays.

Data obtained from the clinical trials are susceptible to varying interpretation, which may delay, limit or prevent regulatory approval. A number of companies in the pharmaceutical industry, including biotechnology companies, have suffered significant setbacks in advanced clinical trials, even after achieving promising results in earlier trials. In addition, regulatory authorities may refuse or delay approval as a result of other factors, such as changes in regulatory policy during the period of product development and regulatory agency review.

Satisfaction of regulatory requirements for marketing approval typically takes many years. To obtain regulatory approval, we must first show that our drug products are safe and effective for target indications through preclinical studies and clinical trials. Preclinical testing and clinical development are long, expensive and uncertain processes, and we do not know whether the FDA or its foreign counterpart will allow us to undertake clinical trials of any potential drug products.

Because, in part, of the early stage of our drug candidate research and development process, we cannot predict whether or not regulatory approval will be obtained for any product we develop. At the present time, only one of our drug candidates, APD356, is undergoing clinical trials. Compounds developed by us, alone or with other parties, may not prove to be safe and effective in clinical trials and may not meet all of the applicable regulatory requirements needed to receive marketing approval. If regulatory approval of a product is granted, this approval will be limited to those disease states and conditions for which the product is demonstrated through clinical trials to be safe and effective. Failure to obtain regulatory approval would delay or prevent us from commercializing products.

These risks also apply to the development activities of our collaborators, and we do not expect any drugs resulting from our collaborators' research and development efforts to be commercially available for many years, if ever.

Our efforts will be seriously jeopardized if we are unable to retain and attract key employees

Our success depends on the continued contributions of our principal management, development and scientific personnel, and the ability to hire and retain key personnel, particularly in the clinical development area as we transition more of our programs from research into drug development. We face intense competition for such personnel. The loss of services of any principal member of our management or scientific staff, particularly Jack Lief, our President and Chief Executive Officer, and Dominic P. Behan, Ph.D., our Senior Vice President and Chief Scientific Officer, could adversely impact our operations and ability to raise additional capital. To our knowledge, neither Mr. Lief nor Dr. Behan is planning on leaving, retiring or otherwise disassociating with us in the near future.

Our revenues are contingent upon the actions of our existing and potential collaborators

Our revenues depend on our ability to enter into new collaborative and license agreements and the success of our existing collaborations. We will receive little revenue under our existing agreements if our own or our collaborators' research, development or, ultimately, marketing efforts are unsuccessful, or if our agreements are terminated early. Typically, our collaborators (and not us) control the development of compounds into drugs after we have met early preclinical scientific milestones, and we are not entitled to the more significant milestone payments under our agreements until our collaborators have advanced compounds into clinical testing, which may not occur for many years, if ever.

In 2002 and 2003, revenues recognized under our collaboration with Merck represented approximately 8% and 62% of our revenues, respectively. Absent any new collaborations, we expect substantially all of our revenues in 2004 will be derived from our collaboration with Merck. Our revenues will be materially impacted if:

Merck terminates its agreement with us;

Our collaborators do not devote their time and financial resources to develop compounds identified with our technologies;

Our collaborators dispute whether we have achieved a milestone, rights to a particular receptor or compound, or other terms of our agreements;

Collaborators and potential collaborators use alternative technologies to our technologies and compete with us in developing drugs; and

Our collaborators experience failures in the discovery or development of compounds identified with our technologies or in the clinic or marketplace with other drugs that cause them to discontinue or slow down progress under our collaboration.

The term of the collaborative research program with Merck is three years from October 21, 2002. Merck can terminate this program for any of the following reasons: (i) without cause, at any time on or after October 21, 2004, by giving notice at least 90 days prior to such termination date, if certain milestones have been achieved and paid; (ii) without cause, at any time after October 21, 2004, by giving 180 days prior notice; (iii) for certain technical grounds (including if the GPCRs are scientifically shown to be unsuitable targets for drug development or valid third-party patent rights block the achievement of significant program goals) by giving 30 days prior notice; and (iv) in the event of a change in control of Arena, by giving 30 days prior notice. Merck can also terminate the agreement without any reason at any time after October 21, 2005. Either party can terminate the agreement at any time for cause if the other party breaches its material obligations under the agreement by causes and reasons within its control, has not cured such breach and there is no dispute as to whether such breach has occurred. Additionally, in lieu of terminating the agreement, Merck can terminate certain aspects of the agreement by giving 90 days prior notice if we materially breach our obligations at any time during the period from October 21, 2002, to October 21, 2005 (or such earlier date of termination) and fail to cure such breach, if such default can be cured but not within a certain period, or if we do not commence and diligently continue good faith efforts to cure such default during such period. In the event of any such termination, our revenues would be materially adversely affected.

Consolidation in our industry and our or our collaborator's inability to obtain acceptable prices for drugs could make partnering more difficult and diminish our revenues

Consolidation in the pharmaceutical and biotechnology industry and setbacks caused by competition from generic drugs and litigation may have an adverse effect on us. In addition to the number of potential partners being reduced, pharmaceutical companies may be less willing to enter into a new collaboration with us during a time they are integrating a new operation as a result of a merger or acquisition, their therapeutic areas of focus may change following a merger, or they may have reduced research budgets as a result of some financial setback.

In addition, our and our collaborators' ability to commercialize future drugs will depend in part on government regulation and the reimbursement policies of government authorities, private health insurers and other third party payors. Government and third party payors are increasingly attempting to contain healthcare costs by limiting coverage and reimbursement levels for new drugs. These efforts may limit our commercial opportunity now by reducing the amount a potential collaborator is willing to pay to license our programs and in the future by reducing the revenues that we and our collaborators could generate from drug sales.

A dispute regarding the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be costly and result in delays in our research and development activities

Our success depends, in part, on our ability to operate without infringing or misappropriating the proprietary rights of others. There are many patents and patent applications filed, and that may be filed, by others relating to our drug discovery and development programs that could be determined to be similar, identical or superior to ours or our licensors or collaborators. Our activities, or those of our licensors or collaborators, could be determined to infringe these patents.

Although the government sponsored project to sequence the human genome has made genomics information freely available to the public, other organizations, companies and individuals are seeking proprietary positions on genomics information that overlap with the government sponsored project. Our activities, or those of our licensors or collaborators, could be affected by conflicting positions that may exist between any overlapping genomics information made available publicly as a result of the government sponsored project and genomics information that other organizations, companies or individuals consider to be proprietary.

There could be significant litigation and other administrative proceedings in our industry regarding patent and other intellectual property rights. Any legal action against us, or our collaborators, claiming damages or seeking to enjoin commercial activities relating to our drug discovery and development programs could:

require us, or our collaborators, to obtain a license to continue to use, manufacture or market the affected products, methods or processes, which may not be available on commercially reasonable terms, if at all;

prevent us from importing, making, using, selling or offering to sell the subject matter claimed in patents held by others and subject us to potential liability for damages;

consume a substantial portion of our managerial, scientific and financial resources; or

be costly, regardless of the outcome.

Others contact us from time to time notifying us regarding their intellectual property rights, sometime asserting that we may need a license to use their technologies. No person is pursuing infringement proceedings against us that we believe will have a material adverse impact on our activities.

In addition, third parties may infringe or misappropriate our proprietary rights, and we may have to institute costly legal action to protect our intellectual property rights. We may not be able to afford the costs of enforcing or defending our intellectual property rights against third parties.

Drug discovery and development is an intensely competitive business that could render our technologies obsolete or noncompetitive

The main focus of our efforts are G protein-coupled receptors, or GPCRs. Because GPCRs are an important target class for drug discovery efforts, we believe that most pharmaceutical companies, including GlaxoSmithKline PLC, which we view as our chief competitor in terms of GPCR knowledge and expertise, and many biotechnology companies and other organizations, have internal drug discovery programs focused on GPCRs. Another company, organization or individual could have, or could develop, a technology using GPCRs to discover and develop compounds into drugs more effectively or more efficiently than our screening and other technologies. Such a technology could render our technologies, in particular our constitutively activated receptor technology, or CART, and Melanophore technology, obsolete or noncompetitive.

Many of the drugs that we or our collaborators are attempting to discover and develop would compete with existing therapies. In addition, many companies are pursuing the development of drugs that target the same diseases and conditions that we are targeting such as metabolic diseases, cardiovascular diseases, central nervous system disorders and inflammatory diseases. Our competitors, or even our collaborators, may use discovery technologies and techniques to develop compounds into drugs more efficiently or successfully than we or our collaborators are able to do with our technologies. Many of our competitors, particularly large pharmaceutical companies, have substantially greater research and development capabilities and greater financial, scientific and human resources than we do. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before we do for the same indication may achieve a significant competitive advantage, including certain patent and FDA marketing exclusivity rights. In addition, our competitors may develop drugs with fewer side effects, more desirable characteristics (such as route of administration or frequency of dosing) or greater efficacy than our drugs, if any, for the same indication. Any results from our research and development efforts, or from our joint efforts with our existing or any future collaborators, may not compete successfully with existing products or therapies.

Our success is dependent on intellectual property rights held by us and third parties and our interest in these rights is complex and uncertain

A patent gives the patent owner the exclusive right to exclude others from making, using, importing, selling and offering for sale the patented invention. Our success will depend on our own and on our collaborators' abilities to obtain, secure and defend patents. In particular, the patents directed to compounds discovered using our technologies are important to commercializing drugs. We have numerous United States and foreign patent applications pending for our technologies, including patent applications on drug lead discovery techniques using CART, genetically altered GPCRs, GPCRs that we have discovered, new uses for previously discovered GPCRs, compounds discovered using CART and Melanophore and other technologies. The procedures for obtaining a patent in the United States and in most foreign countries are complex. These procedures require an analysis of the scientific technology related to the invention and many legal issues. Consequently, we expect that the analysis of our patent applications will be complex and time consuming. Therefore, our patent position is very uncertain and we do not know when, or if, we will obtain additional patents for our technologies.

In March 2003, we became aware that the Japanese Patent Office had issued a Notification of Reasons for Revocation of our Japanese patent on our Melanophore technology based on the alleged obviousness and lack of enablement. In subsequent proceedings, the Japanese Patent Office has dropped its lack of enablement argument and has focused on obviousness. We are currently defending the non-obviousness of this patent. If we were to lose our opposition before the Japanese Patent Office, it might adversely affect our ability to enter into new drug discovery partnerships with Japanese companies that focus on the Melanophore technology.

As of June 16, 2004, we own, in part or in whole, or have exclusively licensed the following patents: 13 in the United States, 11 in European countries, three in Australia, and two in New Zealand. In addition, as of June 16, 2004, we have approximately 196 patent applications before the United States Patent and Trademark Office, foreign patent offices and international patent authorities. These patents and patent applications are divided into 58 distinct families of related patents that are directed to CART, Melanophore technology, other novel screening methods, chemical compositions of matter, methods of treatment using chemical compositions, or GPCR genes. One of our patent families was exclusively in-licensed and contains a single issued patent. Eight of our patent families containing a total of six patents and 27 patent applications were the subject of joint inventions by our employees and the employees of other entities. The remaining 49 patent families containing a total of 22 patents and 169 patent applications were invented solely by our employees. There is no assurance that any of these patent applications will issue, or that any of the patents will be enforceable or will cover a drug

product or other commercially significant product or method. Our most advanced compounds, including APD356, are the subject of patent applications and not patents.

Except for the United States patents relating to our Melanophore technology, the term of all of our other current patents commenced, and our future patents, if any, will commence, on the date of issuance and terminate 20 years from the earliest effective filing date of the patent application. Since our United States Melanophore patents were issued under now superceded rules that provided a patent term of 17 years from the date of issuance, the term of these patents are scheduled to end in 2012, more than 21 years after their earliest filing date. Because the time from filing to issuance of biotechnology patent applications is often more than three years, the resulting term of our pending patent applications, if any, on our products and technologies may be substantially less than 20 years. In the United States, patent term extensions are available for certain delays in patent office proceedings and United States Food and Drug Administration ("FDA") approval. However, due to the specific requirements for obtaining these extensions, there is no assurance that our patents will be afforded extensions even if we encounter significant delays in patent office proceedings or FDA approval.

Our rights in our federally registered marks, including "Arena Pharmaceuticals," "Arena" and our corporate logo, can last indefinitely if we continue to use the mark on or in connection with the goods and/or services in the registration and file all necessary documentation in the United States Patent and Trademark Office at the appropriate times. Our rights in our other marks, such as "CART" and "BRL Screening", can last indefinitely under state law.

In 2000, the United States Patent and Trademark Office began issuing broad patent claims that could allow patent holders to control the use of all drug products that modulate a particular drug target or GPCR, regardless of whether the infringing drug product bears any structural resemblance to a chemical compound known to the patent holder at the time of patent filing. The question of whether these new patent claims are valid and if so under what circumstances is highly controversial and the subject of intense litigation. Whether we or our competitors are able to obtain and enforce such patent claims particularly as they apply to the GPCRs that are the subject of our drug development activities may have a large impact on our profits from any drugs that we are able to develop. Moreover, the uncertainty surrounding the validity of these patent claims may make it significantly more difficult to predict future profits and to raise additional financing.

More consistent policies regarding the breadth of claims allowed in biotechnology patents have begun to emerge in the last few years. For example, on January 5, 2001, the United States Patent and Trademark Office issued finalized Utility Examination Guidelines to its patent examiners that focus on what can be patented under United States patent law. These guidelines are beginning to be implemented in a more consistent fashion and primarily impact the procedures that are used in determining the types of inventions that can be patented and the minimum threshold of information necessary to patent inventions in the fields of biotechnology and chemistry. We still do not completely know to what extent these guidelines will ultimately affect our patents or those of our competitors and collaborators.

We also rely on trade secrets to protect our technologies. However, trade secrets are difficult to protect. We require all of our employees to contractually agree not to improperly use our trade secrets or disclose them to others, but we may be unable to determine if our employees have conformed or will conform with their legal obligations under these agreements. We also require collaborators and consultants to enter into confidentiality agreements, but we may not be able to adequately protect our trade secrets or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of this information. Many of our employees and consultants were, and many of them may currently be, parties to confidentiality agreements with other pharmaceutical and biotechnology companies, and the use of our technologies could violate these agreements. In addition, third parties may independently discover our trade secrets or proprietary information.

Technology licensed to us by others, or in-licensed technology, is important to some aspects of our business. With a few exceptions, we generally do not control the patent prosecution, maintenance or enforcement of in-licensed technology. Accordingly, we are unable to exercise the same degree of control over in-licensed technology as we do over our internally developed technologies. Moreover, some of our academic institution licensors, research collaborators and scientific advisors have rights to publish data and information to which we have rights. If we cannot maintain the confidentiality of our technologies and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information will be impaired.

We have entered into collaborations with several commercial and academic entities, and generally seek to prevent our partners from disclosing scientific discoveries before we have the opportunity to file patent applications on such discoveries. In some of our collaborations we do not have control over our partners' ability to disclose their own discoveries under the collaboration and in some of our academic collaborations we are limited to relatively short periods to review a proposed publication and file a patent application. As a general matter, all of our consulting agreements require consultants to maintain the secrecy of our confidential information.

We cannot protect our intellectual property rights throughout the world

Filing patents on all of our drug discovery technologies throughout the world would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own drug products. These products may compete with our products and may not be covered by any of our patent claims or other intellectual property rights.

Patent law outside the United States is also uncertain and in many countries is currently undergoing review and revision, particularly with respect to biotechnology-related and pharmaceutical inventions. The laws of some countries do not protect our intellectual property rights to the same extent as United States laws. It may be necessary or useful for us to participate in proceedings to determine the validity of our, or our competitors', foreign patents, which could result in substantial cost and divert our efforts and attention from other aspects of our business.

We may encounter significant delays or problems with our new chemical development facility

We have a chemical development facility that we are using for process research, the scale-up and production of intermediates and other compounds for research and development purposes, and the production of active pharmaceutical ingredients.

We are completing the activities needed to obtain the applicable manufacturing licenses to ship clinical materials in accordance with current good manufacturing practices, or cGMP. U.S., Europe and other regulatory authorities require that clinical and commercial products be manufactured according to cGMP regulations. In addition, drug-manufacturing facilities in the state of California must be inspected and licensed by the California Department of Health Services in compliance with state regulatory requirements. California law prohibits the shipment of product from a manufacturing facility for any clinical testing or commercial use prior to satisfaction of licensing requirements. There is no assurance that we will obtain a license, or obtain it in a timely manner.

We may encounter delays and problems in operating our chemical development facility due to:

governmental approvals, permits and regulation of the facility;

accidents during operation of the facility;

installation of equipment for the facility;

delays in receiving raw materials from suppliers;

natural or other disasters; or

other factors inherent in operating a complex manufacturing facility.

Even if we are able to successfully commence full operation of our chemical development facility, we may not be able to do so in a cost-effective manner or in a time frame that is consistent with our expected future manufacturing needs. In addition, our future manufacturing needs may not be sufficient to allow the facility to be fully operational.

Our quarterly operating results may fluctuate and may cause our stock price to decline

Our revenues and results of operations may fluctuate significantly from quarter to quarter, depending on a variety of factors, including:

our success or failure in clinical trials;

the timing of the discovery of drug leads and the development of drug candidates, if any;

entering into a new collaboration or modifying or terminating an existing collaboration;

the timing and receipt by us of milestone and royalty payments, if any;

changes in the research and development budgets of our existing collaborators or potential collaborators;

others introducing new drug discovery techniques or new drugs that target the same diseases and conditions that we or our collaborators target;

regulatory actions;

changes in accounting principles generally accepted in the United States; and

expenses related to, and the results of, litigation and other proceedings relating to intellectual property rights or other matters.

We are not able to control all of these factors. Period-to-period comparisons of our financial results are not necessarily indicative of our future performance. If our revenues or results of operations in a particular period do not meet stockholders' or analysts' expectations, our stock price may decline and such decline could be significant.

Our stock price has fluctuated historically. From January 1, 2002, through December 31, 2003, the market price of our stock was as low as \$5.20 per share and as high as \$12.79 per share. From January 1, 2004, to May 31, 2004, the market price of our stock was as low as \$5.55 per share and as high as \$7.10 per share.

There are a substantial number of shares of our common stock eligible for future sale in the public market. The sale of these shares could cause the market price of our common stock to fall.

There were 25,551,996 shares of our common stock outstanding as of May 31, 2004. The outstanding shares of our Series B-1 Convertible Preferred Stock are convertible into up to 4,717,570 shares of common stock at \$7.50 per share of common stock. Holders of the Series B-1 Convertible Preferred Stock will receive a 4% annual dividend that is payable by issuing common stock or by increasing the amount of common stock that is issuable upon conversion of the Series B-1 Convertible Preferred Stock. In addition, our Series B-1 Convertible Preferred Stock owners hold warrants to acquire common stock and unit warrants to acquire Series B-2 Convertible Preferred Stock and additional warrants to acquire common stock, which, if exercised and converted, would obligate us to issue up to 3,579,057 additional shares of common stock at a

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weighted average exercise price of \$8.62 per share. In addition, as of May 31, 2004, there were 2,845,742 common stock options issued and

outstanding under our equity compensation plans at a weighted average exercise price of \$9.16, 1,497,015 additional shares of common stock issuable under our equity compensation plans, 768,884 shares of common stock reserved for issuance under our 2001 Employee Stock Purchase Plan and 127,501 shares issuable under a deferred compensation plan. A substantial number of the shares described above, when issued upon exercise, will be available for immediate resale in the public market. The market price of our common stock could fall as a result of such resales due to the increased number of shares available for sale in the market.

Any future equity or debt issuances by us may have dilutive or adverse effects on our existing stockholders

We have financed our operations, and we expect to continue to finance our operations, primarily by issuing and selling our common stock or securities convertible into or exercisable for shares of our common stock. In light of our need for additional financing, we may issue additional shares of common stock or additional convertible securities that could dilute your ownership in our company and may include terms that give new investors rights that are superior to yours. Moreover, any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on your ownership interest, which could result in the market price of our common stock declining.

We may also raise additional funds through the incurrence of debt, and the holders of any debt we may issue would have rights superior to your rights in the event we are not successful.

Provisions of our Series B Convertible Preferred Stock may prevent or make it more difficult for us to raise funds or take certain other actions

In December 2003, we completed the private placement to two institutional investors of (i) an aggregate of 3,500 shares of our Series B-1 Convertible Preferred Stock, (ii) seven-year warrants to purchase up to an aggregate of 1,486,200 shares of our common stock at an exercise price of \$10.00 per share and (iii) unit warrants to purchase for a period of approximately 16 months up to \$11,500,000 of our Series B-2 Convertible Preferred Stock and additional seven-year warrants to purchase up to 450,000 shares of our common stock at an exercise price of \$10.00 per share. Provisions of the Series B Convertible Preferred Stock may require us to obtain approval of the preferred stockholders, or otherwise trigger rights of first refusal or payment provisions, to (i) offer or sell new securities, other than in underwritten offerings, licensing transactions and certain other exceptions, (ii) sell or issue common stock or securities issuable into common stock below certain prices, (iii) incur debt or allow liens on our property, other than certain permitted debt and liens, (iv) amend our certificate of incorporation so as to affect adversely any rights of the preferred stockholders, (v) authorize or create a new class of stock that will be senior or equal to the Series B Convertible Preferred Stock in terms of dividends, redemption or distribution of assets, (vi) use more than \$25 million in cash for acquisitions or (vii) take certain other actions. These provisions may make it more difficult for us to take certain corporate actions and could delay, discourage or prevent future financings.

Holders of our Series B Convertible Preferred Stock may require us to redeem their Series B Convertible Preferred Stock, and we will be required to redeem any shares of Series B Convertible Preferred Stock that remain outstanding on the fifth anniversary of their issuance

If (i) following the 21st month anniversary of the original issue date of the applicable series of Series B Convertible Preferred Stock, our closing price of our common stock for any 30 days is below the applicable conversion price for the Series B Convertible Preferred Stock or (ii) we issue common stock or common stock equivalents (excluding, among other things, certain common stock and common stock equivalents issued or issuable (a) to our officers, directors, employees or consultants, (b) in connection with certain strategic partnerships or joint ventures, (c) pursuant to certain underwritten

public offerings with gross proceeds of greater than \$35.0 million, and (d) in connection with certain mergers and acquisitions) for less than \$6.72, in the case of the Series B-1 Convertible Preferred Stock, or a price to be determined based on a formula, in the case of Series B-2 Convertible Preferred Stock, then in each case the holders of the Series B Convertible Preferred Stock may require us to redeem their shares of the applicable series of Series B Convertible Preferred Stock at a price equal to the amount of the original holder's original investment, plus all accrued but unpaid dividends thereon to the date of payment and any applicable penalties. In addition, we will be required to redeem any shares of the Series B Convertible Preferred Stock that remain outstanding on the fifth anniversary of their issuance at a price equal to the amount of the original holder's original investment, plus all accrued but unpaid dividends thereon to the date of such payment. We can elect to pay the redemption price in shares of our common stock if (i) we have sufficient number of shares of common stock available for issuance, (ii) the shares of common stock to be issued are registered under an effective registration statement, (iii) our common stock is listed on NASDAQ or other eligible market, (iv) the shares to be issued can be issued without violating the rules of NASDAQ or any applicable trading market or a provision of our agreement with the holders, (v) no bankruptcy event has occurred, and (vi) certain other enumerated conditions.

There can be no assurance that we will not have to redeem the Series B Convertible Preferred Stock, or, if we do have to redeem the stock, that we will be able to pay the redemption price using shares of our common stock. If we use common stock to redeem the Series B Convertible Preferred Stock, your ownership interest may be significantly diluted. If we are required or elect to redeem shares of the Series B Convertible Preferred Stock using cash, we may not have sufficient cash to redeem these shares or to continue our planned research and discovery activities. In such event we would likely try to raise additional capital by issuing new stock, but there can be no assurance that capital will be available on acceptable terms or at all.

We may engage in strategic transactions that could impact our liquidity

From time to time we consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing compounds developed by us or others. These additional potential transactions may include a variety of different business arrangements, including spin-offs, acquisitions, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any such transaction may require us to incur non-recurring or other charges, may increase our near and long-term expenditures and may pose significant integration challenges or disrupt our management or business, which could harm our operations and financial results.

Our rights agreement and certain provisions in our charter documents and Delaware law could delay or prevent a change in management or a takeover attempt that you may consider to be in your best interest

We have adopted certain anti-takeover provisions, including a stockholders' rights plan, dated as of October 30, 2002, between us and Computershare Trust Company, Inc., as Rights Agent, as amended on December 24, 2003 (the "Rights Agreement"). The Rights Agreement is not intended to prevent an acquisition of us at a full and fair price. Rather, it is intended to deter an attempt to acquire us in a manner or on terms not approved by our board of directors, and will cause substantial dilution to any person who attempts to acquire us in a manner or on terms not so approved.

The Certificate of Designations for the Series B Convertible Preferred Stock provides that the Series B Convertible Preferred Stock holders are entitled to receive a premium in the event of a change of control. The Series B Convertible Preferred Stock holders have also agreed to vote as recommended by our board of directors on all matters in which the common stockholders have the right to vote.

The Rights Agreement and Certificate of Designations for the Series B Convertible Preferred Stock, as well as other provisions in our certificate of incorporation and by-laws and under Delaware law, could delay or prevent the removal of directors and other management and could make more difficult a merger, tender offer or proxy contest involving us. For example, these provisions:

allow our board of directors to issue preferred stock without stockholder approval;

limit who can call a special meeting of stockholders;

eliminate stockholder action by written consent; and

establish advance notice requirements for nomination for election to the board of directors or for proposing matters to be acted upon at stockholders meetings.

We use biological materials, hazardous materials, chemicals and radioactive compounds

Our research and development activities involve the use of potentially harmful biological materials as well as hazardous materials, chemicals and various radioactive compounds that could be hazardous to human health, safety or the environment. These materials and various wastes resulting from their use are stored at our facility pending ultimate use and disposal. We cannot completely eliminate the risk of contamination, which could cause:

an interruption of our research and development efforts;

injury to our employees and others resulting in the payment of damages;

environmental damage resulting in costly clean up; or

liabilities under federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products.

In such an event, we could be held liable for any resulting damages, and any such liability could exceed our resources. Although we believe that we carry insurance in amounts and type that we consider commercially reasonable, we do not have insurance coverage for losses relating to an interruption of our research and development efforts caused by contamination and we cannot be certain that the coverage or coverage limits of our insurance policies will be adequate.

Our operations might be interrupted by the occurrence of a natural disaster or other catastrophic event

We depend on our collaborators, contractors and vendors and on our laboratories and other facilities for the continued operation of our business. Natural disasters or other catastrophic events, including terrorist attacks, power interruptions, wildfires and other fires, actions of animal rights activists, earthquakes and wars, could disrupt our operations or those of our collaborators, contractors and vendors. Even though we believe we carry reasonably adequate business interruption and liability insurance, and our contractors may carry liability insurance, that protect us in certain events, we might suffer losses as a result of business interruptions that exceed the coverage available under our and our contractors' insurance policies or for which we or our contractors do not have coverage. For example, we are not insured against a terrorist attack. Any natural disaster or catastrophic event could have a significant negative impact on our operations and financial results.

FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates by reference, and the applicable prospectus supplement may contain, "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These forward-looking statements can generally be identified as such because the context of the statement will include words such as "may," "will," "intends," "plans," "believes," "anticipates," "expects," "estimates," "predicts," "potential," "continue," or "opportunity," the negative of these words or words of similar import. Similarly, statements that describe our future plans, strategies, intentions, expectations, objectives, goals or prospects are also forward-looking statements. Discussions containing these forward-looking statements may be found, among other places, in "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q for the quarters ended subsequent to our filing of such Annual Report on Form 10-K with the SEC, as well as any amendments thereto reflected in subsequent filings with the SEC. These forward-looking statements are or will be, as applicable, based largely on our expectations and projections about future events and future trends affecting our business, and so are or will be, as applicable, subject to risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. The risks and uncertainties include, among others, those noted in "Risk Factors" above and in the applicable prospectus supplement and any documents incorporated herein or therein by reference.

In addition, past financial and/or operating performance is not necessarily a reliable indicator of future performance and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition. Except as required by law, we undertake no obligation to publicly revise our forward-looking statements to reflect events or circumstances that arise after the date of this prospectus or the prospectus supplement or the date of documents incorporated by reference in this prospectus that include forward-looking statements.

USE OF PROCEEDS

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of our securities under this prospectus for general corporate purposes.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our certificate of incorporation authorizes us to issue 67,500,000 shares of common stock, par value \$.0001 per share and 7,500,000 shares of preferred stock, par value \$.0001 per share. As of May 31, 2004, approximately 25,600,000 shares of common stock were outstanding. To date, our board of directors has designated 350,000 of the authorized shares of preferred stock as Series A Junior Participating Preferred Stock (the "Series A Preferred Stock"), which series is described in greater detail below under "Share Purchase Rights Plan," and 4,650 of the authorized shares of preferred stock as Series B Convertible Preferred Stock as described in greater detail below under "Series B Preferred Stock." As of May 31, 2004, 3,500 shares of Series B Convertible Preferred Stock were outstanding.

The following summary describes the material terms of our capital stock and stockholder rights plan. The description of capital stock and stockholder rights plan is qualified by reference to our amended and restated certificate of incorporation, our bylaws, the certificates of designation for the Series A Preferred Stock and our Series B Convertible Preferred Stock, and our stockholder rights plan, which are incorporated by reference as exhibits into the registration statement of which this prospectus is a part.

Common Stock

Voting. Common stockholders are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval.

Dividends and Other Distributions. Holders of our common stock are entitled to share in an equal amount per share in any dividends declared by our board of directors on the common stock and paid out of legally available assets.

Distribution on Dissolution. Subject to any preferential rights of any outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any outstanding preferred stock.

Other Rights. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights.

Preferred Stock

Under our certificate of incorporation, our board of directors has the authority, without further action by stockholders, to designate up to 7,500,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be greater than the rights of the common stock. To date, our board of directors has designated 350,000 of the authorized shares of preferred stock as the Series A Preferred Stock, which series is described in greater detail below under "Share Purchase Rights Plan," and 4,650 of the authorized shares of preferred stock as Series B Convertible Preferred Stock as described in greater detail below under "Series B Preferred Stock."

The issuance of additional preferred stock could adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation. The issuance could have the effect of decreasing the market price of the

common stock. The issuance of preferred stock also could have the effect of delaying, deterring or preventing a change in control of us.

Share Purchase Rights Plan. Each outstanding share of our common stock has attached to it one preferred share purchase right, which we refer to as a Right. Each Right entitles the registered holder to purchase from us one one-hundredth of a share of the Series A Preferred Stock at a price of \$36 per one one-hundredth of a share of the Series A Preferred Stock (the "Purchase Price"), subject to adjustment. The description and terms of the Rights are set forth in a Rights Agreement dated as of October 30, 2002, between us and Computershare Trust Company, Inc. as Rights Agent, which is incorporated by reference as an exhibit into the registration statement of which this prospectus is a part.

Until the earlier to occur of (i) 10 days following a public announcement that a person or group of affiliated or associated persons (an "Acquiring Person") have acquired beneficial ownership of 10% or more (or more than the BVF Percentage in the case of BVF (as such terms are hereafter defined)) of our outstanding common stock or (ii) 10 business days (or such later date as may be determined by action of our board of directors prior to such time as any person or group of affiliated persons becomes an Acquiring Person) following the commencement of, or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 10% or more (or more than the BVF Percentage in the case of BVF) of our outstanding common stock (the earlier of such dates being called the "Distribution Date"), the Rights will be evidenced, with respect to any of our common stock certificates outstanding as of November 13, 2002, by such common stock certificate with a copy of the Summary of Rights in the form attached as Exhibit C to the Rights Agreement. BVF will not be considered an "Acquiring Person" for purposes of the Rights Agreement unless BVF's beneficial ownership of our common stock exceeds its current beneficial ownership level of approximately 12.2% (the "BVF Percentage"), subject to reduction if BVF disposes of our common stock.

The Rights Agreement provides that none of our directors or officers shall be deemed to beneficially own any of our common stock owned by any other director or officer by virtue of such persons acting in their capacities as such, including, without limitation, in connection with any formulation and publication of our board of director's recommendation of its position, and any actions taken in furtherance thereof, with respect to any acquisition proposal relating to Arena, a tender or exchange offer for any of our common stock or any solicitation of proxies with respect to any of our common stock.

The Rights Agreement provides that, until the Distribution Date (or earlier redemption or expiration of the Rights), the Rights will be transferred with and only with our common stock. Until the Distribution Date (or earlier redemption or expiration of the Rights), new common stock certificates issued after November 13, 2002, upon transfer or new issuance of our common stock will contain a notation incorporating the Rights Agreement by reference. Until the Distribution Date (or earlier redemption or expiration of the Rights), the surrender for transfer of any certificates for our common stock outstanding as of November 13, 2002, even without such notation or a copy of the Summary of Rights attached thereto, will also constitute the transfer of the Rights associated with our common stock represented by such certificate. As soon as practicable following the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of our common stock as of the close of business on the Distribution Date and such separate Right Certificates alone will evidence the Rights.

The Rights are not exercisable until the Distribution Date. The Rights will expire on October 30, 2012, (the "Final Expiration Date"), unless the Final Expiration Date is extended or the Rights are earlier redeemed or exchanged by us, in each case, as described below.

The Purchase Price payable, and the number of shares of the Series A Preferred Stock or other securities or property issuable, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the Series A Preferred Stock, (ii) upon the grant to holders of the Series A Preferred Stock of certain rights or warrants to subscribe for or purchase Series A Preferred Stock at a price, or securities convertible into Series A Preferred Stock with a conversion price, less than the then-current market price of the Series A Preferred Stock or (iii) upon the distribution to holders of the Series A Preferred Stock of evidences of indebtedness or assets (excluding regular periodic cash dividends paid out of earnings or retained earnings or dividends payable in Series A Preferred Stock) or of subscription rights or warrants (other than those referred to above).

The number of outstanding Rights and the number of one one-hundredths of a share of Series A Preferred Stock issuable upon exercise of each Right are also subject to adjustment in the event of a stock split of our common stock or a stock dividend on our common stock payable in our common stock or subdivisions, consolidations or combinations of our common stock occurring, in any such case, prior to the Distribution Date.

Series A Preferred Stock purchasable upon exercise of the Rights will not be redeemable. Once issued upon exercise of Rights, each share of Series A Preferred Stock will be entitled to a minimum preferential quarterly dividend payment of \$1 per share but will be entitled to an aggregate dividend of 100 times the dividend declared per share of our common stock. In the event of liquidation, the holders of outstanding shares of Series A Preferred Stock will be entitled to a minimum preferential liquidation payment of \$100 per share but will be entitled to an aggregate payment of 100 times the payment made per share of our common stock. Each outstanding share of Series A Preferred Stock will have 100 votes, voting together with our common stock. Finally, in the event of any merger, consolidation or other transaction in which our common stock is exchanged, each outstanding share of Series A Preferred Stock will be entitled to receive 100 times the amount received per share of our common stock. These rights are protected by customary antidilution provisions.

Because of the nature of the Series A Preferred Stock's dividend, liquidation and voting rights, the value of the one one-hundredth interest in a share of Series A Preferred Stock purchasable upon exercise of each Right should approximate the value of one share of our common stock.

In the event that any person or group of affiliated or associated persons becomes an Acquiring Person, the Rights Agreement provides that proper provision shall be made so that each holder of a Right, other than Rights beneficially owned by the Acquiring Person (which will thereafter be void), will thereafter have the right to receive (subject to adjustment) upon exercise thereof at the then current Purchase Price, that number of shares of our common stock having a market value of two times the Purchase Price. At any time after any person or group becomes an Acquiring Person and prior to the acquisition by such person or group of 50% or more of our outstanding common stock, our board of directors may exchange the Rights (other than Rights owned by such person or group, which will have become void), in whole or in part, at an exchange ratio of one share of our common stock, or one one-hundredth of a share of Series A Preferred Stock (or of a share of a class or series of our preferred stock having equivalent rights, preferences and privileges), per Right (subject to adjustment).

In the event that we are acquired in a merger or other business combination transaction or 50% or more of our consolidated assets or earning power are sold after a person or group has become an Acquiring Person, proper provision will be made so that each holder of a Right will thereafter have the right to receive, upon the exercise thereof at the then current Purchase Price, that number of shares of common stock of the acquiring company which at the time of such transaction will have a market value of two times the Purchase Price.

With certain exceptions, no adjustment in the Series A Preferred Stock will be required until cumulative adjustments require an adjustment of at least 1% in the Purchase Price. No fractional

shares of Series A Preferred Stock will be issued (other than fractions which are integral multiples of one one-hundredth of a share of Series A Preferred Stock, which may, at our election, be evidenced by depositary receipts) and in lieu thereof, an adjustment in cash will be made based on the market price of the Series A Preferred Stock on the last trading day prior to the date of exercise.

At any time prior to the acquisition by a person or group of affiliated or associated persons of beneficial ownership of 10% or more (or more than the BVF Percentage in the case of BVF) of our outstanding common stock, our board of directors may redeem the Rights in whole, but not in part, at a price of \$.01 per Right (the "Redemption Price"). The redemption of the Rights may be made effective at such time on such basis with such conditions as our board of directors in its sole discretion may establish.

The terms of the Rights may be amended by our board of directors without the consent of the holders of the Rights, including an amendment to (i) fix a Final Expiration Date later than October 30, 2012, (ii) reduce the Redemption Price or (iii) increase the Purchase Price, except that from and after such time as any person or group of affiliated or associated persons becomes an Acquiring Person no such amendment may adversely affect the interests of the holders of the Rights (other than the Acquiring Person and its affiliates and associates).

Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of Arena, including, without limitation, the right to vote or to receive dividends.

Series B Preferred Stock. On December 24, 2003, we completed the private placement of \$35 million of Series B-1 Convertible Preferred Stock to two institutional investors (the "Investors") pursuant to a Securities Purchase Agreement (the "Securities Purchase Agreement").

The Series B-1 Convertible Preferred Stock is convertible into our common stock at a fixed conversion price of \$7.50 per share. If not previously converted, we must redeem the Series B-1 Convertible Preferred Stock five years from the original issue date or earlier under certain circumstances. We may make any such redemption in cash or, if certain conditions have been met, in shares of our common stock. Dividends on the Series B-1 Convertible Preferred Stock are payable at a rate of 4% per annum either in kind or in shares of our common stock.

In connection with the sale of the Series B-1 Convertible Preferred Stock, we issued to the Investors seven-year Warrants to purchase up to 1,486,200 shares of our common stock at an exercise price of \$10.00 per share. We also issued to the Investors Unit Warrants giving such Investors the right to purchase from us for a period of approximately 16 months, at their option, up to \$11.5 million of Series B-2 Convertible Preferred Stock and additional seven-year Warrants to purchase up to 450,000 shares of our common stock at an exercise price of \$10.00 per share.

If issued, the Series B-2 Convertible Preferred Stock would be convertible into our common stock at a fixed conversion price, calculated as 110% of the market price of our common stock at the time of issuance of the Series B-2 Convertible Preferred Stock, but not less than \$7.00 per share or greater than \$10.00 per share. Otherwise, the Series B-2 Convertible Preferred Stock has substantially identical terms as the Series B-1 Convertible Preferred Stock, as more fully described in the Certificate of Designations relating to the Series B Convertible Preferred Stock (the "Certificate of Designations").

So long any shares of Series B Convertible Preferred Stock are outstanding, we cannot, directly or indirectly, incur or guarantee, assume or suffer to exist any debt other than permitted debt, as more fully described in the Securities Purchase Agreement. In addition, so long as shares of Series B Convertible Preferred Stock are outstanding, we cannot, directly or indirectly, allow or suffer to exist any lien other than permitted liens, as more fully described in the Securities Purchase Agreement.

From the end of the Blockout Period (as defined in the Securities Purchase Agreement) and for so long as an Investor holds 20% of the shares of Series B Convertible Preferred Stock originally

purchased by such Investor, we cannot, directly or indirectly, effect any Subsequent Placement (as defined in the Securities Purchase Agreement), unless, among other things, we have delivered to each Investor a written notice of any proposed or intended issuance or sale or exchange of the securities being offered in such Subsequent Placement offering to issue and sell to or exchange with each Investor a pro rata portion of fifty percent (50%) of the offered securities, based on such Investor's pro rata portion of the aggregate purchase price paid by the Investors for all of the shares of Series B Convertible Preferred Stock purchased under the Securities Purchase Agreement.

Each Investor agrees that for so long as it holds Series B Convertible Preferred Stock, it shall vote its shares of Series B Convertible Preferred Stock and our common stock on all matters in which such Investor is entitled to vote and on which holders of common stock have the right to vote, in the manner recommended by our board of directors to all of our shareholders unless our board of directors elects to permit the Investors to vote such shares in their own discretion.

If a Change of Control (as defined in the Certificate of Designations) occurs before the two-year anniversary of the original issue date of the Series B Convertible Preferred Stock, we can repurchase the Series B Convertible Preferred Stock at a price equal to the greater of 125% of the stated value or the market value (as calculated in the Certificate of Designations) of such shares of Series B Convertible Preferred Stock plus all accrued but unpaid dividends thereon to the date of payment. If such Change of Control occurs following the two-year anniversary of the original issue date of the Series B Convertible Preferred Stock, we can repurchase the Series B Convertible Preferred Stock at a price equal to the greater of 115% of the stated value or the market value (as calculated in the Certificate of Designations) of such shares of Series B Convertible Preferred Stock plus all accrued but unpaid dividends thereon to the date of payment. We can elect to pay such redemption price in shares of our common stock.

With respect to the Series B Convertible Preferred Stock, (i) following the 21st month anniversary of the original issue date of the Series B Convertible Preferred Stock, if the closing prices of our common stock are below a certain specified level for any 30 consecutive trading days or (ii) if, during any time while any such shares of Series B Convertible Preferred Stock are outstanding, we or any of our Subsidiaries (as defined in the Securities Purchase Agreement) issues common stock or common stock equivalents at an effective net price to us less than certain specified levels, then in each case the holders of the Series B Convertible Preferred Stock may require us to redeem its shares of Series B Convertible Preferred Stock at a price equal to the stated value of such shares of Series B Convertible Preferred Stock to be redeemed plus all accrued but unpaid dividends thereon to the date of payment. We can elect to pay such redemption price in shares of our common stock, if certain conditions have been met.

At any time following the occurrence of a Triggering Event (as defined in the Certificate of Designations), a holder of the Series B Convertible Preferred Stock may require us to repurchase all or any portion of the Series B Convertible Preferred Stock then held by such holder at a price per share equal to the greater of 115% of the stated value or the market value (as calculated in the Certificate of Designations) of such shares of Series B Convertible Preferred Stock plus all accrued but unpaid dividends thereon to the date of payment. We can elect to pay such redemption price in shares of our common stock under certain circumstances.

Our Stockholders Rights Plan has been amended to provide, among other things, that the Investors will not become "Acquiring Persons" solely by virtue of such purchases and issuances of our common stock in connection therewith.

Anti-Takeover Provisions

Delaware Law. We are governed by the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging

in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless before the date that the person became an "interested stockholder," the board of directors approved either the "business combination" or the transaction which makes the person an "interested stockholder," or after the date that the person became an "interested stockholder," the business combination is approved by our board of directors and the vote of at least 66²/₃% of our outstanding voting stock that is not owned by the "interested stockholder." Generally, a "business combination" includes a merger, asset sale or other transaction resulting in a financial benefit to the stockholder. An "interested stockholder" is a person who either owns 15% or more of our outstanding voting stock or, together with affiliates and associates, owns or, within three prior years, did own, 15% or more of our outstanding voting stock. The statute could have the effect of delaying, deferring or preventing a change in our control.

Bylaw and Certificate of Incorporation Provisions. Our bylaws provide that special meetings of our stockholders may be called only by our President, the board of directors or, in limited circumstances, by BVF. Our bylaws also specify that the authorized number of directors may be changed by resolution of the board of directors. Our certificate of incorporation does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors. These and other provisions contained in our certificate of incorporation and bylaws could delay or discourage transactions involving an actual or potential change in control of us or our management, including transactions in which stockholders might otherwise receive a premium for their shares over then current prices. Such provisions could also limit the ability of stockholders to remove current management or approve transactions that stockholders may deem to be in their best interests and could adversely affect the price of our common stock.

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, Inc.

Listing on the Nasdaq National Market

Our common stock is listed on the Nasdaq National Market under the symbol "ARNA."

PLAN OF DISTRIBUTION

We may sell the common stock covered by this prospectus in any of three ways (or in any combination):

to or through underwriters or dealers;

directly to a limited number of purchasers or to a single purchaser; or

through agents.

We may distribute the common stock:

from time to time in one or more transaction at a fixed price or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

The prospectus supplement will describe the method of distribution and set forth the terms of the offering of the common stock covered by this prospectus, including:

the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;

any over-allotment options under which underwriters may purchase additional securities from us;

any underwriting discounts or commissions or agency fees and other items constituting underwriters' or agents' compensation; and

the initial public offering price of the securities and the proceeds to us and any discounts, commissions or concessions allowed or reallocated or paid to dealers.

Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time. We may determine the price or other terms of the common stock offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

Underwriters may offer and sell the offered common stock from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. If underwriters are used in the sale of any common stock, the common stock will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. The common stock may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase the common stock will be subject to certain conditions precedent. The underwriters will be obligated to purchase all of the common stock if they purchase any of the common stock. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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We may sell the common stock through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the common stock and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment. We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the

common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents or underwriters may be required to make in respect thereof. Agents and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. This short sales position may involve either "covered" short sales or "naked" short sales. Covered short sales are short sales made in an amount not greater than the underwriters' over-allotment option to purchase additional shares in this offering described above. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in this offering. Stabilizing transactions permit bids to purchase the underlying security for the purpose of fixing the price of the security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Similar to other purchase transactions, an underwriter's purchase to cover the syndicate short sales or to stabilize the market price of our common stock may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our common stock. As a result, the price of the shares of our common stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

Neither we nor the underwriters makes any representation or prediction as to the effect that the transactions described above may have on the price of the shares. If such transactions are commenced, they may be discontinued without notice at any time.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Cooley Godward LLP, San Diego, California.

EXPERTS

Ernst & Young LLP, our independent registered public accounting firm, have audited our consolidated financial statements included in our Annual report on Form 10-K for the year ended December 31, 2003, as set forth in their report, which is incorporated by reference in this prospectus

and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 450 Fifth Street, N.W., Washington, D.C., 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to the public at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until the termination of this offering:

Our annual report on Form 10-K for the fiscal year ended December 31, 2003 (filed on March 1, 2004);

Our quarterly report on Form 10-Q for the quarterly period ended March 31, 2004 (filed on May 7, 2004);

Our current reports on Form 8-K filed on January 6, 2004, March 17, 2004, April 21, 2004, June 8, 2004, and June 14, 2004;

A description of the amendment to our Stockholders Rights Plan on Form 8-A/A filed on December 30, 2003; and

The description of our common stock contained in our registration statement on Form 8-A, filed on July 26, 2000, including any amendment or reports filed for the purpose of updating such description.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Arena Pharmaceuticals, Inc.
6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200
Attn: Investor Relations

You should rely only on the information contained in this prospectus or any supplement and in the documents incorporated by reference. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any supplement or in the documents incorporated by reference is accurate on any date other than the date on the front of those documents.

This prospectus is part of a registration statement we filed with the SEC (Registration No. 333-115670). That registration statement and the exhibits filed along with the registration statement contain more information about us and the shares in this offering. Because information about documents referred to in this prospectus is not always complete, you should read the full documents which are filed as exhibits to the registration statement. You may read and copy the full registration statement and its exhibits at the SEC's public reference rooms or their website.

ARENA PHARMACEUTICALS, INC.

PROSPECTUS

[], 2004

PART II**INFORMATION NOT REQUIRED IN THE PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following sets forth the estimated costs and expenses, all of which shall be borne by the Registrant, in connection with the offering of the securities pursuant to this Registration Statement:

| | | |
|-------------------------|----|---------|
| Registration Fee | \$ | 6,335* |
| Legal Fees and Expenses | \$ | 10,000* |
| Accounting Fees | \$ | 10,000* |
| Printer Fees | \$ | 10,000* |
| Total | \$ | 36,335* |

*

Estimated

Item 15. Indemnification of Directors and Officers.

The By-laws of the Registrant provide for indemnification of the Registrant's directors and officers to the fullest extent permitted by law. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or controlling persons of the Registrant pursuant to the Registrant's Certificate of Incorporation, By-laws and the Delaware General Corporation Law (the "DGCL"), the Registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

Section 102(b)(7) of the DGCL provides that a certificate of incorporation may include a provision which eliminates or limits the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, relating to prohibited dividends or distributions or the repurchase or redemption of stock or (iv) for any transaction from which the director derives an improper personal benefit. The Registrant's Certificate of Incorporation includes such a provision. As a result of this provision, the Registrant and its stockholders may be unable to obtain monetary damages from a director for breach of his or her duty of care.

Item 16. Exhibits.

| Exhibits: | Description |
|-----------|--|
| 1.1 | Form of Underwriting Agreement (to be filed as an exhibit to a Current Report of the registrant on Form 8-K and incorporated herein by reference). |
| 4.1 | Fifth Amended and Restated Certificate of Incorporation of Arena (incorporated by reference to Exhibit 3.1 to Arena's quarterly report on Form 10-Q for the period ended June 30, 2002, filed with the Commission on August 14, 2002). |
| 4.2 | Certificate of Designations of the Series A Junior Participating Preferred Stock of Arena (incorporated by reference to Exhibit 3.3 to Arena's quarterly report on Form 10-Q for the period ended September 30, 2002, filed with the Commission on November 15, 2002). |
| 4.3 | Certificate of Designations of the Series B Convertible Preferred Stock of Arena (incorporated by reference to Exhibit 3.1 to Arena's report on Form 8-K filed with the Commission on December 30, 2003). |
| 4.4 | Amended and Restated By-Laws of Arena (incorporated by reference to Exhibit 3.2 to Arena's report on Form 8-K filed with the Commission on January 21, 2003). |
| 4.5 | Rights Agreement, dated October 30, 2002, between Arena and Computershare Trust Company, Inc. (incorporated by reference to Exhibit 4.1 to Arena's report on Form 8-K filed with the Commission on November 1, 2002). |
| 4.6 | Amendment to Rights Agreement dated December 24, 2003 (incorporated by reference to Exhibit 4.1 to Arena's report on Form 8-K filed with the Commission on December 30, 2003). |
| 4.7 | Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.2 to Form S-1/A filed with the Commission on July 19, 2000 (registration statement no. 333-35944)). |
| 5.1 | Opinion of Cooley Godward LLP. |
| 23.1 | Consent of Cooley Godward LLP (included as Exhibit 5.1 to this filing). |
| 23.2 | Consent of Ernst & Young LLP, independent registered public accounting firm. |
| 24.1 | Power of Attorney (included on the signature page to Form S-3 filed with the Commission on May 20, 2004, and incorporated herein by reference). |

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate,

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the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii)

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

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2)

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

(3)

To remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of this offering.

(4)

That: (i) for purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and (ii) for the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(5)

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

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on June 18, 2004.

ARENA PHARMACEUTICALS, INC.

By: /s/ JACK LIEF

 Jack Lief, President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| Signatures | Date |
|---|---------------|
| By:/s/ JACK LIEF _____ Jack Lief, President, Chief Executive Officer and Director (principal executive officer) | June 18, 2004 |
| By:/s/ ROBERT E. HOFFMAN _____ Robert E. Hoffman, CPA, Vice President, Finance and Chief Accounting Officer (principal financial and accounting officer) | June 18, 2004 |
| By:/s/ DOMINIC P. BEHAN* _____ Dominic P. Behan, Ph.D., Director | June 18, 2004 |
| By:/s/ DONALD D. BELCHER* _____ Donald D. Belcher, Director | June 18, 2004 |
| By:/s/ SCOTT H. BICE* _____ Scott H. Bice, Director | June 18, 2004 |
| By:/s/ DUKE K. BRISTOW* _____ Duke K. Bristow, Ph.D., Director | June 18, 2004 |
| By:/s/ J. CLAYBURN LA FORCE, JR.* _____ J. Clayburn La Force, Jr., Ph.D., Director | June 18, 2004 |
| By:/s/ ROBERT L. TOMS* _____ Robert L. Toms, Director | June 18, 2004 |
| *By:/s/ STEVEN W. SPECTOR _____ Steven W. Spector, as Attorney-in-Fact | June 18, 2004 |

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QuickLinks

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS

SUMMARY Arena Pharmaceuticals, Inc.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

RISK FACTORS

FORWARD-LOOKING STATEMENTS

USE OF PROCEEDS

DESCRIPTION OF CAPITAL STOCK

PLAN OF DISTRIBUTION

LEGAL MATTERS

EXPERTS

WHERE YOU CAN FIND MORE INFORMATION

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

PART II INFORMATION NOT REQUIRED IN THE PROSPECTUS

SIGNATURES

EXHIBIT INDEX