

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON , D.C. 20549**

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ADVENTRX Pharmaceuticals, Inc.
(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

84-1318182

(I.R.S. Employer
Identification No.)

**9948 Hibert Street, Suite 100
San Diego, California 92131**
(Address, including zip code, and telephone number, including area code,
of Registrant's principal executive offices)

**Steven M. Plumb, CPA
Chief Financial Officer
ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, California 92131
(858) 271-9671**
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

Copies of all communications to:

**Henry D. Evans, Esq.
Francis W. Sarena, Esq.
Bingham McCutchen LLP
Three Embarcadero Center
San Francisco, California 94111
(415) 393-2503**

Approximate date of commencement of proposed sale to the public: as soon as practicable after the effective date of this registration statement.

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

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:

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

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

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered (1)	Amount to be registered	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
common stock, par value \$0.001 per share	20,887,548 shares	\$1.69	\$35,299,956	\$4,472.50

(1) In addition to the common stock set forth in the table, the amount to be registered includes an indeterminate number of shares issuable pursuant to stock splits and stock dividends in accordance with Rule 416(b) under the Securities Act of 1933.

(2) Estimated solely for purposes of calculating the amount of the registration fee. The estimate is made pursuant to Rule 457(a) of the Securities Act of 1933, as amended.

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

The information in this prospectus is not complete and may be changed. No securities may be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION,

Dated: June 30, 2004

PROSPECTUS

20,887,548 Shares

Common Stock

**ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, California 92131
(858) 271-9671**

The security holders of ADVENTRX Pharmaceuticals, Inc. (the "Company") listed in this prospectus are offering an aggregate of 20,887,548 shares of common stock, including shares issuable upon exercise of outstanding warrants.

The shares and warrants were sold to the selling security holders in transactions exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"). We will not receive any of the proceeds from the sale of the shares of common stock offered hereby although we will receive the proceeds of sales of shares of common stock to the selling security holders upon exercise of their warrants (except to the extent warrants are exercised on a net exercise basis).

Each of the selling security holders may sell the shares covered by this prospectus from time to time in transactions on the American Stock Exchange LLC, in the over-the-counter market or in negotiated transactions. Each of the selling security holders directly, or through agents or dealers designated from time to time, may sell the shares of common stock offered by them at fixed prices, at prevailing market prices at the time of sale, at varying prices determined at the time of sale or at negotiated prices.

Our common stock is listed on the American Stock Exchange LLC under the symbol "ANX ." On June 29, 2004 , the last reported sale price of our common stock on the American Stock Exchange LLC was \$1.80 per share.

**INVESTING IN THE COMMON STOCK INVOLVES RISKS.
SEE "RISK FACTORS" BEGINNING ON PAGE 4.**

Neither the Securities and Exchange Commission nor any state securities regulator has approved or disapproved the shares of common stock covered by this prospectus, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is ____ __, 2004

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In this prospectus, "ADVENTRX," the "company," "we," "us," and "our" refer to ADVENTRX Pharmaceuticals, Inc.

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. This prospectus is offering to sell, and is seeking offers to buy, shares of common stock only in jurisdictions where such offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus.

Special Note Regarding Forward-Looking Statements

Some of the statements under “Our Company,” “Risk Factors” and elsewhere in this prospectus constitute forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. These factors include, among others, those listed under “Risk Factors” and elsewhere in this prospectus.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” or “continue” or similar terms.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements.

Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We undertake no obligation to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this prospectus may not occur.

Where You Can Find More Information About Us

We file annual, quarterly and special reports and other information with the Securities and Exchange Commission (the “Commission”). You may read and copy any document we file with the Commission at the Public Reference Room at the Commission, at Room 1024, Judiciary Plaza , 450 Fifth Street, N.W. , Washington , D.C. 20549 . Please call 1-800-SEC-0330 for further information concerning the Public Reference Room. The Commission also makes these documents and other information available on its website at <http://www.sec.gov>. We also maintain a website at <http://www.adventrx.com>. The material on our website is not a part of this prospectus

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We have filed with the Commission a registration statement on Form S-3 under the Securities Act relating to the common stock offered by this prospectus. This prospectus constitutes a part of the registration statement but does not contain all of the information set forth in the registration statement and its exhibits. For further information, we refer you to the registration statement and its exhibits.

The Commission allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to another document we have filed with the Commission. The information incorporated by reference is an important part of this prospectus and information that we file later with the Commission will automatically update and supersede this information. We incorporate by reference the following:

- the description of our common stock contained in the Registration Statement on Form 8-A filed with the Commission on April 27, 2004;
- our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2003 filed with the Commission on March 26, 2004 ;
- our Quarterly Report on Form 10-QSB for the quarter ended March 31, 2004 filed with the Commission on May 12, 2004 ;
- our Current Report on Form 8-K dated April 5, 2004 , as amended on April 13, 2004 ; and
- any future filings we make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), until the selling security holders sell all of the common stock offered by them pursuant to this prospectus.

We will provide exhibits to these filings at no cost only if they are specifically incorporated into those filings.

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

Steven M. Plumb, CPA
Chief Financial Officer
ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego , California 92131
(858) 271-9671

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Our Company

We were initially organized as a corporation under the Delaware General Corporation Law in December 1995. In October 2000, we closed the merger of our wholly-owned subsidiary, Biokeys Acquisition Corp., with and into Biokeys, Inc. In consideration of the merger, we issued an aggregate of 6,999,990 shares of common stock to the holders of capital stock of Biokeys, Inc.

On May 30, 2003 , our then wholly-owned subsidiary, Biokeys, Inc., merged into us and we changed our name from Biokeys Pharmaceuticals, Inc. to ADVENTRX Pharmaceuticals, Inc. The merger had no effect on our financial statements.

We are a biomedical research and development business focused on treatments for viral infections and cancer. Our business is in the development stage; we have not generated any significant revenues or any operating revenues and we have not yet commercialized or marketed any products. Pursuant to license agreements with the University of Texas M.D. Anderson Cancer Center, the National Institutes of Health and the University of Southern California , we have been granted development, commercialization, manufacturing and marketing rights to a number of drug candidates in the fields of antiviral and anticancer therapy, which are in varying stages of development. Our goal is to become a leading developer of drug therapies for the treatment of the Human Immunodeficiency Virus, Acquired Immune Deficiency Syndrome and cancer.

Risk Factors

You should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones facing our company. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations.

Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks and you may lose all or part of your investment.

We have a substantial accumulated deficit and limited working capital.

We had an accumulated deficit of \$(28,481,146) as of December 31, 2003 and \$(29,191,609) as of March 31, 2004. Since we presently have no source of revenues and are committed to continuing our product research and development program, significant expenditures and losses will continue until development of new products is completed and such products have been clinically tested, approved by the Food and Drug Administration and successfully marketed. In addition, we funded our operations primarily through the sale of securities, and have had limited working capital for our product development and other activities. We do not believe that debt financing from financial institutions will be available until at least the time that one of our products is approved for commercial production.

We have no current product sales revenues or profits.

We have devoted our resources to developing a new generation of therapeutic drug products, but such products cannot be marketed until clinical testing is completed and governmental approvals have been obtained. Accordingly, there is no current source of revenues, much less profits, to sustain our present activities, and no revenues will likely be available until, and unless, the new products are clinically tested, approved by the Food and Drug Administration and successfully marketed, either by us or a marketing partner, an outcome which we are not able to guarantee.

It is uncertain that we will have access to future capital or government grants.

It is not expected that we will generate positive cash flow from operations for at least the next several years. As a result, substantial additional equity or debt financing or the receipt of one or more government grants for research and development or clinical development will be required to fund our activities. We cannot be certain that we will be able to consummate any such financing on favorable terms, if at all, or receive any such government grants or that such financing or government grants will be adequate to meet our capital requirements. Any additional equity financing could result in substantial dilution to stockholders, and debt financing, if available, will most likely involve restrictive covenants which preclude us from making distributions to stockholders and taking other actions beneficial to stockholders. If adequate funds are not available, we may be required to delay or reduce the scope of our drug development program or attempt to continue development by entering into arrangements with collaborative partners or others that may require us to relinquish some or all of our rights to proprietary drugs. The inability to fund our capital requirements would have a material adverse effect on us

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We are not certain that we will be successful in the development of our drug candidates.

The successful development of any new drug is highly uncertain and is subject to a number of significant risks. Our drug candidates, all of which are in a development stage, require significant, time-consuming and costly development, testing and regulatory clearance. This process typically takes several years and can require substantially more time. Risks include, among others, the possibility that a drug candidate will (i) be found to be ineffective or unacceptably toxic, (ii) have unacceptable side effects, (iii) fail to receive necessary regulatory clearances, (iv) not achieve broad market acceptance, (v) be subject to competition from third parties who may market equivalent or superior products, or (vi) be affected by third parties holding proprietary rights that will preclude us from marketing a drug product. There can be no assurance that the development of our drug candidates will demonstrate the efficacy and safety of our drug candidates as therapeutic drugs, or, even if demonstrated, that there will be sufficient advantages to their use over other drugs or treatments so as to render the drug product commercially viable. In the event that we are not successful in developing and commercializing one or more drug candidates, investors are likely to realize a loss of their entire investment.

Positive results in preclinical and early clinical trials do not ensure that future clinical trials will be successful or that drug candidates will receive any necessary regulatory approvals for the marketing, distribution or sale of such drug candidates.

Success in preclinical and early clinical trials does not ensure that large-scale clinical trials will be successful. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. The length of time necessary to complete clinical trials and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly and may be difficult to predict.

We will face intense competition from other companies in the pharmaceutical industry.

We are engaged in a segment of the pharmaceutical industry that is highly competitive and rapidly changing. If successfully developed and approved, any of our drug candidates will likely compete with several existing therapies. In addition, other companies are pursuing the development of pharmaceuticals that target the same diseases as are targeted by the drugs being developed by us. We anticipate that we will face intense and increasing competition in the future as new products enter the market and advanced technologies become available. We cannot assure that existing products or new products developed by competitors will not be more effective, or more effectively marketed and sold than those we may market and sell. Competitive products may render our drugs obsolete or noncompetitive prior to our recovery of development and commercialization expenses.

Many of our competitors will also have significantly greater financial, technical and human resources and will likely be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience in preclinical testing and clinical trials, obtaining Food and Drug Administration and other regulatory approvals and manufacturing and marketing pharmaceutical products. A number of these competitors also have products that have been approved or are in late-stage development and operate large, well-funded research and development programs. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. Furthermore, academic institutions, government agencies and other public and private research organizations are becoming increasingly aware of the commercial value of their inventions and are actively seeking to commercialize the technology they have developed. Accordingly, competitors may succeed in commercializing products more rapidly or effectively than us, which would have a material adverse effect on us

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There is no assurance that our products will have market acceptance.

Our success will depend in substantial part on the extent to which a drug product, once approved, achieves market acceptance. The degree of market acceptance will depend upon a number of factors, including (i) the receipt and scope of regulatory approvals, (ii) the establishment and demonstration in the medical community of the safety and efficacy of a drug product, (iii) the product's potential advantages over existing treatment methods and (iv)

reimbursement policies of government and third party payors. We cannot predict or guarantee that physicians, patients, healthcare insurers or maintenance organizations, or the medical community in general, will accept or utilize any of our drug products.

The unavailability of health care reimbursement for any of our products will likely adversely impact our ability to effectively market such products and whether health care reimbursement will be available for any of our products is uncertain.

Our ability to commercialize our technology successfully will depend in part on the extent to which reimbursement for the costs of such products and related treatments will be available from government health administration authorities, private health insurers and other third-party payors. Significant uncertainty exists as to the reimbursement status of newly-approved medical products. We cannot guarantee that adequate third-party insurance coverage will be available for us to establish and maintain price levels sufficient for realization of an appropriate return on its investments in developing new therapies. Government, private health insurers, and other third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products approved for marketing by the Food and Drug Administration. Accordingly, even if coverage and reimbursement are provided by government, private health insurers, and third-party payors for use of our products, the market acceptance of these products would be adversely affected if the amount of reimbursement available for the use of our therapies proved to be unprofitable for health care providers

Uncertainties related to health care reform measures may affect our success.

There have been a number of federal and state proposals during the last few years to subject the pricing of health care goods and services, including prescription drugs, to government control and to make other changes to U.S. health care system. It is uncertain which legislative proposals will be adopted or what actions federal, state, or private payors for health care treatment and services may take in response to any health care reform proposals or legislation. We cannot predict the effect health care reforms may have on our business, and there is no guarantee that any such reforms will not have a material adverse effect on us.

Further testing of our drug candidates will be required and there is no assurance of Food and Drug Administration approval.

The Food and Drug Administration and comparable agencies in foreign countries impose substantial requirements upon the introduction of medical products, through lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures. Satisfaction of these requirements typically takes several years or more and varies substantially based upon the type, complexity, and novelty of the product.

The effect of government regulation and the need for Food and Drug Administration approval will delay marketing of new products for a considerable period of time, impose costly procedures upon our activities, and provide an advantage to larger companies that compete with us. There can be no assurance that Food and Drug Administration or other regulatory approval for any products developed by us will be granted on a timely basis or at all. Any such delay in obtaining, or failure to obtain, such approvals would materially and adversely affect the marketing of any contemplated products and the ability to earn product revenue. Further, regulation of manufacturing facilities by state, local, and other authorities is subject to change. Any additional regulation could result in limitations or restrictions on the company's ability to utilize any of its technologies, thereby adversely affecting our operations.

Human pharmaceutical products are subject to rigorous preclinical testing and clinical trials and other approval procedures mandated by the Food and Drug Administration and foreign regulatory authorities. Various federal and foreign statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate U.S. and foreign statutes and regulations are time-consuming and require the expenditure of substantial resources. In addition, these requirements and processes vary widely from country to country.

Among the uncertainties and risks of the Food and Drug Administration approval process are the following: (i) the possibility that studies and clinical trials will fail to prove the safety and efficacy of the drug, or that any demonstrated efficacy will be so limited as to significantly reduce or altogether eliminate the acceptability of the drug in the marketplace, (ii) the possibility that the costs of development, which can far exceed the best of estimates, may render commercialization of the drug marginally profitable or altogether unprofitable, and (iii) the possibility that the amount of time required for Food and Drug Administration approval of a drug may extend for years beyond that which is originally estimated. In addition, the Food and Drug Administration or similar foreign regulatory authorities may require additional clinical trials, which could result in increased costs and significant development delays. Delays or rejections may also be encountered based upon changes in Food and Drug Administration policy and the establishment of additional regulations during the period of product development and Food and Drug Administration review. Similar delays or rejections may be encountered in other countries.

Our success will depend on licenses and proprietary rights we receive from other parties, and on any patents we may obtain.

Our success will depend in large part on our ability and our licensors' ability to (i) maintain license and patent protection with respect to their drug products, (ii) defend patents and licenses once obtained, (iii) maintain trade secrets, (iv) operate without infringing upon the patents and proprietary rights of others and (v) obtain appropriate licenses to patents or proprietary rights held by third parties if infringement would otherwise occur, both in the U.S. and in foreign countries. We have obtained licenses to patents and other proprietary rights from M.D. Anderson, University of Southern California and the National Institutes of Health.

The patent positions of pharmaceutical companies, including those of the company, are uncertain and involve complex legal and factual questions. There is no guarantee that we or our licensors have or will develop or obtain the rights to products or processes that are patentable, that patents will issue from any of the pending applications or that claims allowed will be sufficient to protect the technology licensed to us. In addition, we cannot be certain that any patents issued to or licensed by us will not be challenged, invalidated, infringed or circumvented, or that the rights granted thereunder will provide competitive disadvantages to us.

Litigation, which could result in substantial cost, may also be necessary to enforce any patents to which we have rights, or to determine the scope, validity and unenforceability of other parties' proprietary rights, which may affect our rights. U.S. patents carry a presumption of validity and generally can be invalidated only through clear and convincing evidence. There can be no assurance that our licensed patents would be held valid by a court or administrative body or that an alleged infringer would be found to be infringing. The mere uncertainty resulting from the institution and continuation of any technology-related litigation or interference proceeding could have a material adverse effect on us pending resolution of the disputed matters.

We may also rely on unpatented trade secrets and know-how to maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with employees, consultants and others. There can be no assurance that these agreements will not be breached or terminated, that we will have adequate remedies for any breach, or that trade secrets will not otherwise become known or be independently discovered by competitors.

Our license agreements can be terminated in the event of a breach.

The license agreements pursuant to which we license our core technologies for our potential drug products permit the licensors, respectively M.D. Anderson, National Institutes of Health and University of Southern California, to terminate the agreements under certain circumstances, such as the failure by us to use our reasonable best efforts to commercialize the subject drug or the occurrence of any other uncured material breach by us. The license agreements also provide that the licensor is primarily responsible for obtaining patent protection for the technology licensed, and we are required to reimburse the licensor for the costs it incurs in performing these activities. The license agreements also require the payment of specified royalties. Any inability or failure to observe these terms or pay these costs or royalties could result in the termination of the applicable license agreement in certain cases. The termination of any license agreement would have a material adverse effect on us.

Protecting our proprietary rights is difficult and costly.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. Accordingly, we cannot predict the breadth of claims allowed in these companies' patents or whether we may infringe or be infringing these claims. Patent disputes are common and could preclude the commercialization of our products. Patent litigation is costly in its own right and could subject us to significant liabilities to third parties. In addition, an adverse decision could force us to either obtain third-party licenses at a material cost or cease using the technology or product in dispute.

Our success is dependent on our key personnel.

We depend on a small management group and scientific/clinical team and on independent researchers, some of whom are inventors of the patents licensed to us for core technologies and drugs developed at M.D. Anderson and University of Southern California. Scientific personnel may from time to time serve as consultants to the company and may devote a portion of their time to our business, as well as continue to devote substantial time to the furtherance of our sponsored research at M.D. Anderson, University of Southern California and other affiliated institutions as may be agreed to in the future, but such personnel are not our employees and are not bound under written employment agreements. The services of such persons are important to us, and the loss of any of these services may adversely affect us.

We may be unable to retain skilled personnel and maintain key relationships.

The success of our business depends, in large part, on our ability to attract and retain highly qualified management, scientific and other personnel, and on our ability to develop and maintain important relationships with leading research institutions and consultants and advisors. Competition for these types of personnel and relationships is intense from numerous pharmaceutical and biotechnology companies, universities and other research institutions. There can be no assurance that we will be able to attract and retain such individuals on commercially acceptable terms or at all, and the failure to do so would have a material adverse effect on us.

We currently have no sales or marketing capability.

We currently do not have marketing or sales personnel. We will have to develop a sales force, or rely on marketing partners or other arrangements with third parties for the marketing, distribution and sale of any drug product which is ready for distribution. There is no guarantee that we will be able to establish marketing, distribution or sales capabilities or make arrangements with third parties to perform those activities on terms satisfactory to us, or that any internal capabilities or third party arrangements will be cost-effective.

In addition, any third parties with which we may establish marketing, distribution or sales arrangements may have significant control over important aspects of the commercialization of a drug product, including market identification, marketing methods, pricing, composition of sales force and promotional activities. There can be no assurance that we will be able to control the amount and timing of resources that any third party may devote to the products of the company or prevent any third party from pursuing alternative technologies or products that could result in the development of products that compete with, or the withdrawal of support for, our products.

We do not have manufacturing capabilities and may not be able to efficiently develop manufacturing capabilities or contract for such services from third parties on commercially acceptable terms.

We do not have any manufacturing capacity. When required, we will seek to establish relationships with third-party manufacturers for the manufacture of clinical trial material and the commercial production of drug products as we have with Merck Eprova AG, Multiple Peptide Systems, Inc., Peptisyntha, Inc., deCode genetics, Inc., and MediChem Research, Inc. There can be no assurance that we will be able to establish relationships with third-party manufacturers on commercially acceptable terms or that third-party manufacturers will be able to manufacture a drug product on a cost-effective basis in commercial quantities under good manufacturing practices mandated by the Food and Drug Administration.

The dependence upon third parties for the manufacture of products may adversely affect future costs and the ability to develop and commercialize a drug product on a timely and competitive basis. Further, there can be no assurance that manufacturing or quality control problems will not arise in connection with the manufacture of our drug products or that third party manufacturers will be able to maintain the necessary governmental licenses and approvals to continue manufacturing such products. Any failure to establish relationships with third parties for our manufacturing requirements on commercially acceptable terms would have a material adverse effect on us.

We are dependent in part on third parties for drug development and research facilities.

We do not possess research and development facilities necessary to conduct all of our drug development activities. We engage consultants and independent contract research organizations to design and conduct clinical trials in connection with the development of our drugs. As a result, these important aspects of a drug's development will be outside our direct control. In addition, there can be no assurance that such third parties will perform all of their obligations under arrangements with us or will perform those obligations satisfactorily.

In the future, we anticipate that we will need to obtain additional or increased product liability insurance coverage and it is uncertain that such increased or additional insurance coverage can be obtained on commercially reasonable terms.

Our business will expose us to potential product liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical products. There can be no assurance that product liability claims will not be asserted against us. We intend to obtain additional limited product liability insurance for our clinical trials, directly or through our marketing development partners or CRO (contract research organization) partners, when they begin in the U.S. and to expand its insurance coverage if and when we begin marketing commercial products. However, there can be no assurance that we will be able to obtain product liability insurance on commercially acceptable terms or that we will be able to maintain such insurance at a reasonable cost or in

sufficient amounts to protect against potential losses. A successful product liability claim or series of claims brought against us could have a material adverse effect us.

Insurance coverage is increasingly more difficult to obtain or maintain.

Obtaining insurance for our business, property and products is increasingly more costly and narrower in scope, and we may be required to assume more risk in the future. If we are subject to third-party claims or suffer a loss or damage in excess of our insurance coverage, we may be required to share that risk in excess of our insurance limits. Furthermore, any first- or third-party claims made on any of our insurance policies may impact our ability to obtain or maintain insurance coverage at reasonable costs or at all in the future.

The market price of our shares , like that of many biotechnology companies, is highly volatile.

Market prices for our common stock and the securities of other medical and biomedical technology companies have been highly volatile and may continue to be highly volatile in the future. Factors such as announcements of technological innovations or new products by us or our competitors, government regulatory action, litigation, patent or proprietary rights developments, and market conditions for medical and high technology stocks in general can have a significant impact on any future market for our common stock.

We are not paying dividends on our common stock.

We have never paid cash dividends on our common stock, and do not intend to do so in the foreseeable future.

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The issuance of shares of our preferred stock may adversely affect our common stock.

Our Board of Directors is authorized to designate one or more series of preferred stock and to fix the rights, preferences, privileges and restrictions thereof, without any action by the stockholders. The designation and issuance of such shares of our preferred stock may adversely affect the common stock, if the rights, preferences and privileges of such preferred stock (i) restrict the declaration or payment of dividends on common stock, (ii) dilute the voting power of common stock, (iii) impair the liquidation rights of the common stock or (iv) delay or prevent a change in control of the company from occurring, among other possibilities.

Under provisions of our certificate of incorporation, bylaws and Delaware law, our management may be able to block or impede a change in control.

The issuance of preferred stock may make it more difficult for a third party to acquire, or may discourage a third party from acquiring, a majority of the voting stock. These and other provisions of our certificate of incorporation and our by-laws, as well as certain provisions of Delaware law, could delay or impede the removal of incumbent directors and could make more difficult a merger, tender offer or proxy contest involving a change of control of the company, even if such events could be beneficial to the interest of the stockholders as a whole. Such provisions could limit the price that certain investors might be willing to pay in the future for our common stock.

Officers' and directors' liabilities are limited under Delaware law.

Pursuant to our certificate of incorporation and by-laws, as authorized under applicable Delaware law, directors are not liable for monetary damages for breach of fiduciary duty, except in connection with a breach of the duty of loyalty, for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, for dividend payments or stock repurchases illegal under Delaware law or for any transaction in which a director has derived an improper personal benefit. Our certificate of incorporation and by-laws provide that we must indemnify our officers and directors to the fullest extent permitted by Delaware law for all expenses incurred in the settlement of any actions against such persons in connection with their having served as officers or directors.

Use Of Proceeds

All of the shares of common stock offered pursuant to this prospectus are being offered by the selling security holders listed under "Selling Security Holders." We will not receive any proceeds from sales of shares of common stock by the selling security holders. The shares offered hereby include an aggregate of 7,563,473 shares issuable upon exercise of outstanding warrants held by security holders named in this prospectus. We will receive proceeds from any exercise of these warrants (except to the extent warrants are exercised on a net exercise basis). The proceeds, if any, will be added to our working capital and be available for general corporate purposes.

Selling Security Holders

All of the shares of our common stock registered for sale under this prospectus (the "Registered Shares") are owned, as of the date of this prospectus, by the selling security holders listed in the table below. We issued the Registered Shares in separate private placements. We are registering the Registered Shares for the selling security holders.

The following table sets forth information as of June 28, 2004 with respect to the selling security holders and the respective number of shares of common stock beneficially owned by each selling security holder, all of which are offered pursuant to this prospectus. For purposes of computing the number and percentage of shares beneficially owned by a selling security holder on June 28, 2004, any shares which such person has the right to acquire within 60 days after such date are deemed to be outstanding, but those shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other selling security holder:

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered(2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering(1)
Alan Sheinwald	19,500 (3)	*	19,500	0	0
Anasazi Partners II LLC	130,000 (4)	*	130,000	0	0
Anasazi Partners III LLC	499,998 (5)	*	499,998	0	0
Anasazi Partners III Offshore LLC	174,998 (6)	*	174,998	0	0

Balkrishna E. Shagrithaya	162,500 (7)	*	37,500	125,000	*
Ball Family Trust (Edward D. Ball and Susan E. Ball, Trustees)	630,000 (8)	1.2	130,000	500,000	*
Benjamin Partners Savings Plan FBO Jeffrey Benison	65,000 (9)	*	65,000	0	0
Bristol Investment Fund, Ltd c/o Bristol Capital Advisors, LLC	399,998 (10)	*	399,998	0	0
BSI New BioMedical Frontier (SICAV)	1,134,500 (11)	2.1	800,000	334,500	*
BSI SA	149,250 (12)	*	149,250	0	0
Capital Ventures International	999,998 (13)	1.9	999,998	0	0
Castle Creek Healthcare Partners LLC	500,000 (14)	*	500,000	0	0
CD Investment Partners, Ltd.	375,000 (15)	*	375,000	0	0

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered (2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering (1)
Chicago Private Investments	65,000 (16)	*	65,000	0	0
Christopher Baker	546,000 (17)	1.0	475,000	71,000	*
Crescent International Ltd	270,000 (18)	*	270,000	0	0
Dannie King	32,500 (19)	*	32,500	0	0
David and Jennifer Brown	650 (20)	*	650	0	0
David W. Penney & Sarah B. McAllister	20,000 (21)	*	13,000	7,000	*
David Wiener Revocable Trust - 96	1,195,000 (22)	2.2	145,000	1,050,000	2.0
Deborah Melnick	13,000 (23)	*	13,000	0	0
Deborah Young, M.D. APC Employees Retirement Trust Y/A DTD 4/2/91	45,500 (24)	*	20,500	25,000	*
E. Todd Tracy	150,000 (25)	*	150,000	0	0
Enable Growth Partners	300,000 (26)	*	300,000	0	0
Ernst Pernet	160,900 (27)	*	75,450	85,450	*
Gamma Opportunity Capital Partners, LP	399,998 (28)	*	399,998	0	0

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered (2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering (1)
Gene Salkind, M.D.	155,000 (29)	*	155,000	0	0
Gilad Ottensoser	7,000 (30)	*	7,000	0	0
Hans Gaverstrom	44,708 (31)	*	24,708	20,000	*
Haywood Securities Inc in Trust for Bridge Finance Ltd.	65,000 (32)	*	65,000	0	0
HSB Capital	32,500 (33)	*	32,500	0	0
James Ladner	75,452 (34)	*	50,485	24,967	*
Jay S. and Gabrielle Kunin	19,500 (35)	*	19,500	0	0
Jeff Hermanson	95,000 (36)	*	32,500	62,500	*
JIBS Equities	199,998 (37)	*	199,998	0	0
Jillian E. and Robert J. Boldway	38,250 (38)	*	7,500	30,750	*
John R. and Marjorie B. Brown	2,600 (39)	*	2,600	0	0
Jonathan Balk	173,750 (40)	*	32,250	141,500	*
Joseph Reynolds	65,000 (41)	*	65,000	0	0
Julie A. Gegner	3,250 (42)	*	750	2,500	*
Kanter Family Foundation	65,000 (43)	*	65,000	0	0

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered (2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering (1)
Kenneth Cerruto	15,000 (44)	*	15,000	0	0
Kenneth Greif	499,998 (45)	*	499,998	0	0

Laddcap Value Partners LP	150,000 (46)	*	150,000	0	0
Larry Rice	65,000 (47)	*	65,000	0	0
Legend Merchant Group, Inc.	1,500 (48)	*	1,500	0	0
Lilienthal Investment Foundation	51,000 (49)	*	51,000	0	0
Lisa Rachlin	650 (50)	*	650	0	0
Longview Fund, LP	249,998 (51)	*	249,998	0	0
Marital Trust GST Subject U/T/W of Leopold Salkind DTD 10/29/02 , Marilyn Salkind, Gene Salkind, Trustees	32,500 (52)	*	32,500	0	0
Mark Collins	18,750 (53)	*	18,750	0	0
Mark A. Ford	13,000 (54)	*	13,000	0	0
Mark Eugene Reaman	32,500 (55)	*	32,500	0	0
Michael Elconin	13,000 (56)	*	13,000	0	0
Michael M. Goldberg	451,000 (57)	*	26,000	425,000	*
Michael Gottlieb	163,500 (58)	*	163,500	0	0
Michael Loew	212,498 (59)	*	87,498	125,000	*

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered (2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering (1)
OTAPE Investments LLC	99,998 (60)	*	99,998	0	0
Paul H. Robbins	162,500 (61)	*	37,500	125,000	*
Paul Scharfer	202,500 (62)	*	202,500	0	0
Peter Levitch	187,000 (63)	*	140,000	47,000	*
ProMed Offshore Fund, Ltd.	109,500 (64)	*	109,500	0	0
ProMed Partners II, L.P.	146,700 (65)	*	146,700	0	0
ProMed Partners, L.P.	676,500 (66)	1.3	676,500	0	0
RHP Master Fund, Ltd.	300,000 (67)	*	300,000	0	0
Richard & Carolyn Burgoon	6,500 (68)	*	1,500	5,000	*
Richard L. Hoffman and Ricki Hoffman	65,000 (69)	*	15,000	50,000	*
Richard Melnick	400,750 (70)	*	201,000	199,750	*
Richard Reiss	62,500 (71)	*	37,500	25,000	*
Ritchie Long/Short Trading Ltd.	750,000 (72)	1.4	750,000	0	0
Robert J. and Sandra S. Neborsky JTWROS	80,254 (73)	*	80,254	0	0

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Name	Shares Owned Before Offering	Percent Owned Before Offering (1)	Shares Being Offered (2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering (1)
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	1,495,283 (74)	2.8	672,500	822,783	1.5
Robert Melnick	227,500 (75)	*	227,500	0	0
Robert Nathan	61,499 (76)	*	42,829	18,670	*
Sabbatical Ventures, LLC	30,000 (77)	*	30,000	0	0
Sandi Yurichuk	32,500 (78)	*	32,500	0	0
Schroder & Co. Bank AG	3,643,140 (79)	6.8	2,003,000	1,640,140	3.1
SF Capital Partners Ltd.	750,000 (80)	1.4	750,000	0	0
Sunrise Overseas, Ltd.	249,000 (81)	*	249,000	0	0
TCMP3 Partners	150,000 (82)	*	150,000	0	0
TEK Investments Inc.	1,625,000 (83)	3.0	375,000	1,250,000	2.3
Wayne Saker	60,000 (84)	*	60,000	0	0
Whalehaven Fund Limited	124,998 (85)	*	124,998	0	0
William Newman	116,000 (86)	*	116,000	0	0
Xmark Fund, L.P.	572,500 (87)	1.1	322,500	200,000	*
Xmark Fund, LTD	897,500 (88)	1.7	397,500	500,000	*

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Name	Shares Owned Before Offering	Percent Owned Before Offering(1)	Shares Being Offered(2)	Shares Owned Upon Completion Of Offering	Percent Owned After Offering(1)
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Stonestreet LP	349,998(89)	*	349,998	0	0
Sean Quinn	105,000(90)	*	105,000	0	0
Brian M. Herman	32,500(91)	*	32,500	0	0
Alpha Capital AG	499,998(92)	*	499,998	0	0
Katherine A. Wiener	65,000(93)	*	15,000	50,000	*
Sean M. Callahan	19,500(94)	*	19,500	0	0
LB(Swiss) Privatbank AG	37,500(95)	*	37,500	0	0
Roland Hartmann	63,500(96)	*	63,500	0	0
Clariden Investments Ltd.	323,000(97)	*	148,000	175,000	*
SDS Merchant Fund, LP	1,137,500(98)	2.1	512,500	625,000	1.2
SDS Capital Group SPC, Ltd.	999,998(99)	1.9	999,998	0	0
BayStar Capital II, L.P.	300,000(100)	*	300,000	0	0
North Sound Legacy International Ltd.	384,000(101)	*	384,000	0	0
North Sound Legacy Institutional Fund LLC	198,000(102)	*	198,000	0	0
North Sound Legacy Fund LLC	18,000(103)	*	18,000	0	0
Bullbear Capital Partners, LLC	631,500(104)	*	356,500	275,000	*
Brian Corday	6,250(105)	*	6,250	0	0
Centrum Bank AG	91,500(106)	*	46,500	45,000	*
Robert Wexler	47,500(107)	*	22,500	25,000	*

* Less than 1.0%.

(1) The percentage of ownership of common stock is based on 53,295,155 shares of common stock outstanding as of May 31, 2004 and excludes all shares of common stock issuable upon the exercise of outstanding options or warrants to purchase common stock or conversion of any of our outstanding preferred stock, other than the shares of common stock issuable upon the exercise of options or warrants to purchase common stock held by the named person to the extent such options or warrants are exercisable within 60 days of May 31, 2004.

(2) Options and warrants to purchase our common stock that are presently exercisable or exercisable within 60 days of May 31, 2004 are included in the total number of shares beneficially owned for the person holding those options or warrants and are considered outstanding for the purpose of calculating percentage ownership of the particular holder.

(3) Includes a warrant to purchase 4,500 shares of our common stock, all of which will be offered.

(4) Includes a warrant to purchase 30,000 shares of our common stock, all of which will be offered.

(5) Includes warrants to purchase 133,332 shares of our common stock, all of which will be offered.

(6) Includes warrants to purchase 58,332 shares of our common stock., all of which will be offered.

(7) Includes a warrant to purchase 37,500 shares of our common stock, all of which will be offered.

(8) Includes a warrant to purchase 30,000 shares of our common stock, all of which will be offered. Since February 2004, Edward D. Ball has been a member of our Scientific Advisory Board.

(9) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.

(10) Includes warrants to purchase 133,332 shares of our common stock, all of which will be offered.

(11) Includes warrants to purchase 200,000 shares of our common stock, all of which will be offered.

(12) Includes warrants to purchase 49,750 shares of our common stock, all of which will be offered.

(13) Includes warrants to purchase 333,332 shares of our common stock, all of which will be offered.

(14) Includes warrants to purchase 166,666 shares of our common stock, all of which will be offered.

(15) Includes warrants to purchase 125,000 shares of our common stock, all of which will be offered.

(16) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.

(17) Includes warrants to purchase 125,000 shares of our common stock, all of which will be offered.

(18) Includes warrants to purchase 90,000 shares of our common stock, all of which will be offered.

(19) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.

(20) Includes a warrant to purchase 150 shares of our common stock, all of which will be offered.

(21) Includes warrants to purchase 10,000 shares of our common stock, 3,000 of which will be offered.

(22) Includes warrants to purchase 45,000 shares of our common stock, all of which will be offered.

(23) Includes a warrant to purchase 3,000 shares of our common stock, all of which will be offered.

(24) Includes warrants to purchase 10,500 shares of our common stock, all of which will be offered.

(25) Includes warrants to purchase 50,000 shares of our common stock, all of which will be offered.

(26) Includes warrants to purchase 100,000 shares of our common stock, all of which will be offered.

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- (27) Includes warrants to purchase 90,450 shares of our common stock, 75,450 of which will be offered.
 - (28) Includes warrants to purchase 133,332 shares of our common stock, all of which will be offered.
 - (29) Includes warrants to purchase 45,000 shares of our common stock, all of which will be offered.
 - (30) Includes a warrant to purchase 7,000 shares of our common stock, all of which will be offered.
 - (31) Includes warrants to purchase 24,708 shares of our common stock, all of which will be offered.
 - (32) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.
 - (33) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.
 - (34) Includes warrants to purchase 20,495 shares of our common stock, all of which will be offered.
 - (35) Includes a warrant to purchase 4,500 shares of our common stock, all of which will be offered.
 - (36) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.
 - (37) Includes warrants to purchase 66,665 shares of our common stock, all of which will be offered.
 - (38) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.
 - (39) Includes a warrant to purchase 600 shares of our common stock, all of which will be offered.
 - (40) Includes warrants to purchase 32,250 shares of our common stock, all of which will be offered.
 - (41) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.
 - (42) Includes a warrant to purchase 750 shares of our common stock, all of which will be offered.
 - (43) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.
 - (44) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.
 - (45) Includes warrants to purchase 166,665 shares of our common stock, all of which will be offered.
 - (46) Includes warrants to purchase 50,000 shares of our common stock, all of which will be offered.
 - (47) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.
 - (48) Includes a warrant to purchase 1,500 shares of our common stock, all of which will be offered.
 - (49) Includes warrants to purchase 17,000 shares of our common stock, all of which will be offered.
 - (50) Includes a warrant to purchase 150 shares of our common stock, all of which will be offered.
 - (51) Includes a warrant to purchase 83,332 shares of our common stock, all of which will be offered.
 - (52) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.
 - (53) Includes a warrant to purchase 18,750 shares of our common stock, all of which will be offered.
 - (54) Includes a warrant to purchase 3,000 shares of our common stock, all of which will be offered.
 - (55) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.
 - (56) Includes a warrant to purchase 3,000 shares of our common stock, all of which will be offered.
 - (57) Includes a warrant to purchase 6,000 shares of our common stock, all of which will be offered, and 400,000 shares of common stock held by Emisphere Technologies, Inc., of which Mr. Goldberg is the Chief Executive Officer. Mr. Goldberg disclaims beneficial ownership of all shares of common stock held by Emisphere Technologies, Inc. Since January 2004, Mr. Goldberg has been a member of our Board of Directors.
 - (58) Includes warrants to purchase 83,500 shares of our common stock, all of which will be offered.
 - (59) Includes warrants to purchase 54,165 shares of our common stock, all of which will be offered.
 - (60) Includes warrants to purchase 33,332 shares of our common stock, all of which will be offered.
 - (61) Includes a warrant to purchase 37,500 shares of our common stock, all of which will be offered.
 - (62) Includes warrants to purchase 67,500 shares of our common stock, all of which will be offered.
 - (63) Includes warrants to purchase 49,000 shares of our common stock, 40,000 of which will be offered.
 - (64) Includes warrants to purchase 36,500 shares of our common stock, all of which will be offered.
 - (65) Includes warrants to purchase 48,900 shares of our common stock, all of which will be offered.
 - (66) Includes warrants to purchase 225,500 shares of our common stock, all of which will be offered.

(67) Includes warrants to purchase 100,000 shares of our common stock, all of which will be offered. RHP Master Fund, Ltd. is a party to an investment management agreement with Rock Hill Investment Management, L.P., a limited partnership of which the general partner is RHP General Partner, LLC. Pursuant to such agreement, Rock Hill Investment Management directs the voting and disposition of shares owned by RHP Master Fund, Ltd. Messrs. Wayne Bloch, Gary Kaminsky and Peter Lockhart own all of the interests in RHP General Partner, LLC. The aforementioned entities and individuals disclaim beneficial ownership of shares of our common stock owned by RHP Master Fund, Ltd.

(68) Includes a warrant to purchase 1,500 shares of our common stock, all of which will be offered.

(69) Includes a warrant to purchase 15,000 shares of our common stock, all of which will be offered.

(70) Includes warrants to purchase 201,000 shares of our common stock, all of which will be offered.

(71) Includes warrants to purchase 12,500 shares of our common stock, all of which will be offered.

(72) Includes warrants to purchase 250,000 shares of our common stock, all of which will be offered.

(73) Includes warrants to purchase 60,254 shares of our common stock, all of which will be offered.

(74) Includes warrants to purchase 287,500 shares of our common stock, all of which will be offered.

(75) Includes warrants to purchase 52,500 shares of our common stock, all of which will be offered.

(76) Includes a warrant to purchase 42,829 shares of our common stock, all of which will be offered.

(77) Includes a warrant to purchase 30,000 shares of our common stock, all of which will be offered.

(78) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.

(79) Includes warrants to purchase 603,000 shares of our common stock, all of which will be offered.

(80) Includes warrants to purchase 250,000 shares of our common stock, all of which will be offered.

(81) Includes warrants to purchase 83,000 shares of our common stock, all of which will be offered.

(82) Includes warrants to purchase 50,000 shares of our common stock, all of which will be offered.

(83) Includes a warrant to purchase 375,000 shares of our common stock, all of which will be offered.

(84) Includes warrants to purchase 20,000 shares of our common stock, all of which will be offered.

(85) Includes warrants to purchase 41,665 shares of our common stock, all of which will be offered.

(86) Includes warrants to purchase 32,000 shares of our common stock, all of which will be offered.

(87) Includes warrants to purchase 157,500 shares of our common stock, all of which will be offered.

(88) Includes warrants to purchase 232,500 shares of our common stock, all of which will be offered.

(89) Includes warrants to purchase 116,665 shares of our common stock, all of which will be offered.

(90) Includes warrants to purchase 35,000 shares of our common stock, all of which will be offered.

(91) Includes a warrant to purchase 7,500 shares of our common stock, all of which will be offered.

(92) Includes warrants to purchase 166,665 shares of our common stock, all of which will be offered.

(93) Includes warrants to purchase 15,000 shares of our common stock, all of which will be offered.

(94) Includes warrants to purchase 4,500 shares of our common stock, all of which will be offered.

(95) Includes warrants to purchase 12,500 shares of our common stock, all of which will be offered.

(96) Includes warrants to purchase 18,500 shares of our common stock, all of which will be offered.

(97) Includes warrants to purchase 51,000 shares of our common stock, all of which will be offered.

(98) Includes warrants to purchase 262,500 shares of our common stock, all of which will be offered.

(99) Includes warrants to purchase 333,332 shares of our common stock, all of which will be offered. We have been advised by SDS Capital Group SPC, Ltd. that it is also the beneficial owner of the 1,137,500 shares of our common stock beneficially owned by SDS Merchant Fund, LP.

(100) Includes warrants to purchase 100,000 shares of our common stock, all of which will be offered.

(101) Includes warrants to purchase 128,000 shares of our common stock, all of which will be offered.

(102) Includes warrants to purchase 66,000 shares of our common stock, all of which will be offered.

(103) Includes warrants to purchase 6,000 shares of our common stock, all of which will be offered.

(104) Includes a warrant to purchase 37,500 shares of our common stock, all of which will be offered.

(105) Includes a warrant to purchase 3,125 shares of our common stock, all of which will be offered.

(106) Includes warrants to purchase 16,500 shares of our common stock, all of which will be offered.

(107) Includes warrants to purchase 12,500 shares of our common stock, all of which will be offered.

During the past three years, we paid Ernst Pernet, a security holder listed on the table above, \$41,370 and issued to Mr. Pernet 15,450 shares of common stock and warrants to purchase 35,450 shares of common stock in connection with various investment banking and private placement services provided to us by Mr. Pernet

During the past three years, we paid Richard Melnick, a security holder listed on the table above, \$16,000 and issued to Mr. Melnick 49,750 shares of common stock and warrants to purchase 167,250 shares of common stock in connection with various investment banking and private placement services provided to us by Mr. Melnick.

During the past three years, we paid Michael Gottlieb, a security holder listed on the table above, \$12,500 and issued to Mr. Gottlieb 80,000 shares of common stock and warrants to purchase 80,000 shares of common stock in connection with various investment banking and private placement services provided to us by Mr. Gottlieb.

Within the past three years, other than as described in the foregoing paragraphs, none of the selling security holders had any position, office or other material relationship with us or any of its predecessors or affiliates.

PLAN OF DISTRIBUTION

We are registering the shares of common stock on behalf of the selling security holders. Sales of shares may be made by selling security holders, including their respective donees, transferees, pledgees or other successors-in-interest directly to purchasers or to or through underwriters, broker-dealers or through agents. Sales may be made from time to time on the American Stock Exchange, any other exchange or market upon which our shares may trade in the future, in the over-the-counter market or otherwise, at market prices prevailing at the time of sale, at prices related to market prices, or at negotiated or fixed prices. The shares may be sold by one or more of, or a combination of, the following:

- a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction (including crosses in which the same broker acts as agent for both sides of the transaction);
- purchases by a broker-dealer as principal and resale by such broker-dealer, including resales for its account, pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchases;
- through options, swaps or derivatives;
- in privately negotiated transactions;
- in making short sales or in transactions to cover short sales entered into after the date of this prospectus;
- put or call option transactions relating to the shares; or
- any other method permitted by applicable law.

The selling security holders may effect these transactions by selling shares directly to purchasers or to or through broker-dealers, which may act as agents or principals. These broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling security holders and/or the purchasers of shares for whom such broker-dealers may act as agents or to whom they sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions). Each of the selling security holders has advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities.

Each selling security holder will act independently of us in making decisions regarding the timing, manner and size of each sale of shares of common stock covered by this registration statement.

Each of the selling security holders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with those transactions, the broker-dealers or other financial institutions may engage in short sales of the shares or of securities convertible into or exchangeable for the shares in the course of hedging positions they assume with the selling security holders. Each of the selling security holders may also enter into options or other transactions with broker-dealers or other financial institutions which require the delivery of shares offered by this prospectus to those broker-dealers or other financial institutions. The broker-dealer or other financial institution may then resell the shares pursuant to this prospectus (as amended or supplemented, if required by applicable law, to reflect those transactions).

Each of the selling security holders and any broker-dealers that act in connection with the sale of shares may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, and any commissions received by broker-dealers or any profit on the resale of the shares sold by them while acting as principals may be deemed to be underwriting discounts or commissions under the Securities Act. Each of the selling security holders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares against liabilities, including liabilities arising under the Securities Act. We have agreed to indemnify each of the selling security holders and each selling security holder has agreed, severally and not jointly, to indemnify us against some liabilities in connection with the offering of the shares, including liabilities arising under the Securities Act.

Each selling security holder and any other persons participating in a distribution of the securities covered by this registration statement will be subject to the prospectus delivery requirements of the Securities Act and will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, Regulation M, which may restrict certain activities of, and limit the timing of purchases and sales of securities by, selling security holders and other persons participating in a distribution of securities. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distribution, subject to specified exceptions or exemptions. All of the foregoing may affect the marketability of the securities offered hereby.

Each of the selling security holders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act rather than under this prospectus, provided they meet the criteria and conform to the requirements of Rule 144.

Upon being notified by a selling security holder that a material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus,

if required pursuant to Rule 424(b) under the Securities Act, disclosing:

- the name of each such selling security holder and of the participating broker-dealer(s);
- the number of shares involved;
- the initial price at which the shares were sold;
- the commissions paid or discounts or concessions allowed to the broker-dealer(s), where applicable;
- that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus; and

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-
- other facts material to the transactions.

In addition, if required under applicable law or the rules or regulations of the Commission, we will file a supplement to this prospectus when a selling security holder notifies us that a donee or pledgee intends to sell more than 500 shares of common stock.

We are paying all expenses and fees customarily paid by the issuer in connection with the registration of the shares. Each of the selling security holders will bear all brokerage or underwriting discounts or commissions paid to broker-dealers in connection with the sale of the shares.

Legal Matters

The validity of the issuance of shares of common stock offered hereby will be passed upon for us by Bingham McCutchen LLP, San Francisco, California. To our knowledge, no attorney at Bingham McCutchen LLP who has worked on substantive matters for us owns any of our securities.

Experts

Our consolidated balance sheets as of December 31, 2003 and 2002, and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for the years then ended and for the period from June 12, 1996 (date of inception) through December 31, 2003, have been incorporated by reference in this prospectus and in the registration statement in reliance on the report of J.H. Cohn LLP, independent registered public accounting firm, given upon the authority of said firm as experts in accounting and auditing. The report of J.H. Cohn LLP indicated that the consolidated financial statements for the period from June 12, 1996 (date of inception) through December 31, 2001, were audited by other auditors. J.H. Cohn LLP's opinion insofar as it relates to the period from June 12, 1996 to December 31, 2001, is based solely on the report of the other auditors.

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20,887,548 SHARES

ADVENTRX PHARMACEUTICALS, INC.

COMMON STOCK

PROSPECTUS

_____, 2004

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PART II

Information Not Required In Prospectus

Item 14. Other Expenses Of Issuance And Distribution

The estimated expenses in connection with the distribution of the securities being registered, all of which are to be paid by us, are as follows:

Securities and Exchange Commission Registration Fee	\$4,472.50
Legal Fees and Expenses	\$50,000.00
Accounting Fees and Expenses*	
Miscellaneous Fees and Expenses *	
Total*	

* To be added by amendment

Item 15. Indemnification Of Directors And Officers

Section 145 of the Delaware General Corporation Law grants corporations the power to indemnify their directors, officers, employees and agents in accordance with the provisions thereof. Article VI of our by-laws provide for indemnification of our directors, officers, agents and employees to the full extent permissible under Section 145 of the Delaware General Corporation Law. Section 102(b)(7) of the Delaware General Corporation Law authorizes a

corporation to eliminate the liability of directors for breach of fiduciary duty in certain cases. Article VI of our certificate of incorporation eliminates such liability to the full extent permitted by Section 145.

Pursuant to warrants issued by us and registration rights agreements entered into between us and certain selling security holders, we are obligated to indemnify certain of the selling security holders with respect to various matters.

We maintain directors' and officers' liability insurance coverage protecting our officers and directors against certain liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

Item 16. Exhibits And Financial Statement Schedules

(a) Exhibits

An Exhibit Index has been attached as part of this Registration Statement and is incorporated herein by reference.

(b) Financial Statement Schedules

Schedules are omitted because they are either not required, are not applicable or because equivalent information has been included in the financial statements, the notes thereto or elsewhere herein.

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Item 17. Undertakings

a) 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:

(a) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(b) To reflect in this 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;

(c) 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)(a) and (1)(b) above do not apply if 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 Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

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

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

b) 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 provisions described under Item 15, Indemnification of Directors and Officers' above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment to the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

c) The undersigned Registrant hereby undertakes that:

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

(2) For the purpose of determining any liability under the 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.

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Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on a 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 30, 2004 .

ADVENTRX Pharmaceuticals, Inc.

By: /s/ Steven M. Plumb

Name: Steven M. Plumb, CPA

KNOWN ALL MEN BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Nicholas J. Virca and Steven M. Plumb, and each of them, with full power to act without the other, his or her true and lawful attorney-in-fact and agent for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement including without limitation any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises in order to effectuate the same, as fully, for all intents and purposes, as he could or might do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ M. Ross Johnson</u> M. Ross Johnson, Ph.D	Director, Chairman of the Board	June 30, 2004
<u>/s/ Nicholas J. Virca</u> Nicholas J. Virca	Chief Executive Officer and President (Principal Executive Officer)	June 30, 2004
<u>/s/ Evan M. Levine</u> Evan M. Levine	Director, Vice-Chairman of the Board, Chief Operating Officer and Secretary	June 30, 2004
<u>/s/ Steven M. Plumb</u> Steven M. Plumb, CPA	Chief Financial Officer (Principal Financial and Accounting Officer)	June 30, 2004
<u>/s/ Michael M. Goldberg</u> Michael M. Goldberg, M.D.	Director	June 30, 2004
<u>/s/ Mark J. Pykett</u> Mark J. Pykett, V.M.D., Ph.D.	Director	June 30, 2004
<u>/s/ Mark Bagnall</u> Mark Bagnall	Director	June 30, 2004

Exhibit Index

Exhibit Number	Description
3.1 (1)	Certificate of Incorporation of Victoria Enterprises, Inc.
3.2 (1)	Certificate of Amendment of Certificate of Incorporation of Victoria Enterprises, Inc.
3.3 (1)	Certificate of Amendment of Certificate of Incorporation of BioQuest, Inc.
3.4 (1)	Certificate of Amendment of Certificate of Incorporation of BioQuest, Inc.
3.5 (1)	Certificate of Ownership and Merger Merging Biokeys, Inc. with and into Biokeys Pharmaceuticals, Inc.
3.6 (2)	Amended and Restated Bylaws of Biokeys Pharmaceuticals, Inc.
3.7 (1)	Certificate of Amendment to the Certificate of Incorporation of ADVENTRX Pharmaceuticals, Inc.
4.1	Common Stock and Warrant Purchase Agreement, dated as of April 5, 2004 , among the Registrant and the Investors named therein
4.2	A-1 Warrant to Purchase Common Stock issued to Investors pursuant to the Common Stock and Warrant Purchase Agreement with the Investors
4.3	A-2 Warrant to Purchase Common Stock issued to Investors pursuant to the Common Stock and Warrant Purchase Agreement with the Investors
4.4 (3)	Common Stock and Warrant Purchase Agreement, dated April 8, 2004 , between the Registrant and CD Investment Partners, Ltd.
4.5 (3)	A-1 Warrant to Purchase Common Stock issued to CD Investment Partners, Ltd.
4.6 (3)	A-2 Warrant to Purchase Common Stock issued to CD Investment Partners, Ltd.
4.7 (3)	Warrant to Purchase Common Stock issued on April 8, 2004 to Burnham Hill Partners
4.8 (3)	Warrant to Purchase Common Stock issued on April 8, 2004 to Ernest Pernet
4.9 (3)	Warrant to Purchase Common Stock issued on April 8, 2004 to W.R. Hambrecht + Co. , LLC
4.10	Registration Rights Agreement, dated as of April 5, 2004 , among the Registrant and the Investors named therein
4.11 (3)	Registration Rights Agreement, dated as of April 8, 2004 , between the Registrant and CD Investment Partners, Ltd.

4.12	Not used
4.13	Not used
4.14 (4)	Common Stock and Warrant Purchase Agreement, dated April 19, 2004 , between the Registrant and Franklin Berger
4.15 (4)	A-1 Warrant to Purchase Common Stock issued to Franklin Berger
4.16 (4)	A-2 Warrant to Purchase Common Stock issued to Franklin Berger
4.17 (4)	Registration Rights Agreement, dated as of April 8, 2004 , between the Registrant and Franklin Berger
4.18	Registration Rights Agreement, dated _____, 2001, between the Registrant and certain stockholders
4.19	Warrant to Purchase Common Stock issued by the Registrant
4.20	Stock Subscription Agreement
4.21	Warrant to Purchase Common Stock issued by the Registrant
4.22	Warrant for the Purchase of Shares of Common Stock No. WA-2A issued June 14, 2001 to Robert J. Neborsky and Sandra S. Neborsky, JTWROS
5.1	Opinion of Bingham McCutchen LLP
23.1	Consent of J. H. Cohn LLP
23.2	Consent of Bingham McCutchen LLP (included in Exhibit 5)
24	Power of Attorney (filed as part of signature page to Registration Statement)

(1) Incorporated by reference to the same-numbered exhibit to the Company's Registration Statement on Form 8-A filed April 27, 2004 .

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(2) Incorporated by reference to the same-numbered exhibit to the Company's Registration Statement on Form 10-SB, filed October 2, 2001, as amended.

(3) Incorporated by reference to the same-numbered exhibit to the Company's Current Report on Form 8-K, as amended, dated April 5, 2004.

(4) Incorporated by reference to the same-numbered exhibit to the Company's Quarterly Report on Form 10-QSB filed May 12, 2004.

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This Common Stock and Warrant Purchase Agreement (this "AGREEMENT"), dated as of April 5, 2004 (the "AGREEMENT DATE"), is among ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), and each of the persons and entities listed on Schedule 1 hereto (each, an "INVESTOR").

1. SUBSCRIPTION.

(a) SHARES OF COMMON STOCK. On the terms and subject to the conditions set forth in this Agreement, at the Closing (as defined below), the Company will sell and each Investor will purchase the number of shares of Common Stock, par value \$0.001 per share, of the Company ("COMMON STOCK") set forth opposite such Investor's name on Schedule 1 hereto at a purchase price of \$1.50 per share (the "SHARE PRICE"). For purposes of this Agreement, the term "SHARES" refers to the shares of Common Stock purchased by the Investors pursuant to this Agreement.

(b) WARRANTS. In consideration of each Investor's purchase of shares of Common Stock pursuant to this Agreement, the Company shall also issue to each Investor (i) a warrant, in the form of Exhibit A-1 hereto, to purchase a number of shares of Common Stock equal to the product of (x) 30% and (y) the number of Shares purchased by such Investor (an "A-1 WARRANT") and (ii) a warrant, in the form of Exhibit A-2 hereto, to purchase a number of shares of Common Stock equal to the product of (x) 20% and (y) the number of Shares purchased by such Investor (an "A-2 WARRANT"). The A-1 Warrants and A-2 Warrants issuable to the Investors pursuant to this Agreement are collectively referred to herein as the "WARRANTS."

2. CLOSING; CONDITIONS TO CLOSING.

(a) CLOSING. The closing of the purchase and sale of the Shares and the issuance of the Warrants (the "CLOSING") will take place as promptly as practicable, but no later than five business days after satisfaction or waiver of all of the conditions set forth in Sections 2(c) and (d) (other than those conditions which by their terms are not to be satisfied or waived until the Closing), at the offices of Wiggin and Dana LLP ("WIGGIN"), 400 Atlantic Street, Stamford, Connecticut 06901. The date on which the Closing occurs is referred to herein as the "CLOSING DATE."

(b) DELIVERY OF PURCHASE PRICE. Each Investor shall deliver or cause to be delivered by wire transfer of immediately available funds an amount in cash equal to the aggregate Share Price payable by such Investor at the Closing to Wiggin, counsel to SDS Management, LLC, an affiliate of an Investor ("SDS"), to be held and distributed by Wiggin pursuant to terms of the Closing Escrow Agreement in the form of Exhibit B hereto (the "ESCROW AGREEMENT").

(c) CONDITIONS TO OBLIGATIONS OF INVESTORS TO EFFECT THE CLOSING. The obligations of an Investor to effect the Closing and the transactions contemplated by this Agreement shall be subject to the satisfaction at or prior to the Closing, of each of the following conditions, any of which may be waived, in writing, by an Investor:

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(i) The Company shall deliver or cause to be delivered to each of the Investors the following:

(1) Evidence of delivery to the Company's transfer agent of irrevocable instructions to issue certificates evidencing the aggregate number of Shares to be purchased by such Investor registered in the name of such Investor, in such denominations as is indicated on Schedule 1 for such Investor;

(2) The Registration Rights Agreement in the form of Exhibit C hereto (the "REGISTRATION RIGHTS AGREEMENT") executed by the Company;

(3) One or more Warrants, each registered in the name of such Investor, in such denominations as is indicated on Schedule 1 for such Investor executed by the Company;

(4) A legal opinion of Bingham McCutchen LLP ("COMPANY'S COUNSEL"), counsel to the Company, in the form attached hereto as Exhibit D.

(5) A wire transfer representing SDS's reasonable, documented legal fees and other expenses as described in Section 10(1) hereof.

(6) A certificate signed by an officer of the Company either (i) evidencing that the Company has applied to each U.S. securities exchange, interdealer quotation system and other trading market where its Common Stock is currently listed or qualified for trading or quotation for the listing or qualification of the Shares and the Warrant Shares for trading or quotation thereon or (ii) certifying that no such application is necessary for the listing of such Shares.

(7) The Escrow Agreement executed by the Company.

(d) CONDITIONS TO OBLIGATIONS OF THE COMPANY TO EFFECT THE CLOSING. The obligations of the Company to effect the Closing and the transactions contemplated by this Agreement shall be subject to the satisfaction at or prior to the Closing of each of the following conditions, any of which may be waived, in writing, by the Company:

(i) Each Investor shall have executed and delivered to the Company

this Agreement;

(ii) Each Investor shall have executed and delivered to the Company the Registration Rights Agreement;

(iii) Each Investor shall have executed and delivered to the Company the Investor Suitability Questionnaire attached hereto as Exhibit E and the Company shall be reasonably satisfied, through the responses of each Investor, that the sale of the Shares and the Warrants shall not require registration thereof under the Securities Act of 1933, as amended (the "SECURITIES ACT") or under the blue sky or securities laws of any jurisdiction;

(iv) Each Investor shall have deposited in escrow with Wiggin pursuant to the Escrow Agreement an amount equal to the aggregate Share Price for the Shares and Warrants purchased by such Investor by wire transfer or by such other form of payment as may be mutually agreed upon by the Company and such Investor;

(v) Wiggin shall have executed and delivered to the Company the Escrow Agreement; and

(vi) Burnham Hill Partners (a division of Pali Capital Inc.) (the "PLACEMENT AGENT") shall have delivered a certificate, executed by a managing director of the Placement Agent, dated as of the Closing, certifying the amounts deposited in escrow with Wiggin pursuant to the Escrow Agreement and the names of the Investors that have deposited such amounts in escrow with Wiggin.

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company represents and warrants as of the Agreement Date to the Investors that, except as set forth on the Disclosure Schedule attached as Schedule 3:

(a) CORPORATE EXISTENCE AND POWER; SUBSIDIARIES. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the state in which it is incorporated, and has all corporate powers required to carry on its business as now conducted. The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction where the character of the property owned or leased by it or the nature of its activities makes such qualification necessary, except for those jurisdictions where the failure to be so qualified would not have a Material Adverse Effect. For purposes of this Agreement, the term "MATERIAL ADVERSE EFFECT" means, with respect to the Company, a material adverse effect on the Company's condition (financial or other), business, properties, assets, liabilities (including contingent liabilities), results of operations or current prospects, taken as a whole. True and complete copies of the Company's Certificate of Incorporation, as amended (the "CERTIFICATE"), and Bylaws, as amended (the "BYLAWS"), as currently in effect and as will be in effect on the Closing Date, have previously been made available to the Investors. For purposes of this Agreement, the term "SUBSIDIARY" or "SUBSIDIARIES" means, with respect to any entity, any corporation or other organization of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions are directly or indirectly owned by such entity or of which such entity is a partner or is, directly or indirectly, the beneficial owner of 50% or more of any class of equity securities or equivalent profit participation interests. The Company has no Subsidiaries.

(b) CORPORATE AUTHORIZATION. The execution, delivery and performance by the Company of this Agreement, the Registration Rights Agreement, the Warrants, the Escrow Agreement and each of the other documents executed by the Company pursuant to and in connection with this Agreement (collectively, the "TRANSACTION AGREEMENTS"), and the consummation of the transactions contemplated hereby and thereby (including, but not limited to, the sale and delivery of the

Shares and the Warrants and the subsequent issuance of the Warrant Shares upon exercise of the Warrants) (the "TRANSACTIONS") have been duly authorized, and no additional corporate or stockholder action is required for the approval thereof. The shares issuable upon exercise of the Warrants (the "WARRANT SHARES") have been duly reserved for issuance by the Company. The Transaction Agreements have been or, to the extent contemplated hereby or by the Transaction Agreements, will be duly executed and delivered and constitute the legal, valid and binding agreement of the Company, enforceable against the Company in accordance with their terms, except as may be limited by bankruptcy, reorganization, insolvency, moratorium and similar laws of general application relating to or affecting the enforcement of rights of creditors, and except as enforceability of its obligations hereunder are subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

(c) NON-CONTRAVENTION. The execution, delivery and performance by the Company of the Transaction Agreements, and the consummation by the Company of the Transactions do not and will not (a) violate any term of the Certificate and Bylaws or any material agreement to which the Company is a party or by which it is bound; (b) constitute a violation of any provision of any law, regulation, judgment, injunction, order or decree binding upon or applicable to the Company; (c) constitute a default (or would constitute a default with notice or lapse of time or both) or breach under or give rise to a right of termination, cancellation or acceleration or loss of any benefit under any material agreement, contract or other instrument binding upon the Company or under any material license, franchise, permit or other similar authorization held by the Company; or (d) result in the creation or imposition of any Lien (as defined below) on any asset of the Company. For purposes of this Agreement, the term "LIEN" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest, claim or encumbrance of any kind in respect of such asset.

(d) SEC DOCUMENTS. The Company is obligated under the Securities Exchange Act of 1934, as amended (the "EXCHANGE ACT"), to file reports pursuant to Sections 13 or 15(d) thereof (all such reports filed or required to be filed by the Company with the Securities and Exchange Commission (the "COMMISSION"), including all exhibits thereto or incorporated therein by reference, and all documents filed by the Company under the Securities Act, hereinafter called the "SEC DOCUMENTS"). Since December 31, 2002, the Company has timely filed all SEC Documents required to be filed under the Exchange Act. All SEC Documents filed on or after October 31, 2000 (i) were prepared in all material respects in accordance with the requirements of the Exchange Act and (ii) did not at the time they were filed (or, if amended or superseded by a filing prior to the Agreement Date, then on the date of such filing) contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. A correct and complete copy of each of the SEC Documents for any period ending on or after December 31, 2002 (the "RECENT REPORTS") are currently available to each Investor at the Commission's main public website at <http://www.sec.gov/cgi-bin/browse-edgar?company=advntrx+pharma&CIK=&filenum=&State=&SIC=&owner=include&action=getcompany>. None of the information about the Company or any of its Subsidiaries which has been disclosed to the Investors herein or in the course of discussions and negotiations with respect hereto which is not disclosed in the Recent Reports is or was required to be so disclosed.

(e) FINANCIAL STATEMENTS. Each of the Company's audited consolidated balance sheet and related consolidated statements of income, cash flows and changes in stockholders' equity (including the related notes) as of and for the years ended December 31, 2003 and December 31, 2002, as contained in the Recent Reports (both of (i) and (ii), collectively, the "FINANCIAL STATEMENTS") (x) present fairly in all material respects the financial position of the Company and its Subsidiaries on a consolidated basis as of the dates thereof and the results of operations, cash flows and stockholders' equity as of and for each of the periods then ended and (y) were prepared in accordance with United States generally accepted accounting principals ("GAAP") applied on a consistent basis throughout the periods involved, in each case, except as otherwise indicated in the notes thereto.

(f) COMPLIANCE WITH LAW. The Company is in compliance and has conducted its business so as to comply with all laws, rules and regulations, judgments, decrees or orders of any court, administrative agency, commission, regulatory authority or other governmental authority or instrumentality, domestic or foreign, applicable to its operations, the violation of which would cause a Material Adverse Affect. There are no judgments or orders, injunctions, decrees, stipulations or awards (whether rendered by a court or administrative agency or by arbitration), including any such actions relating to affirmative action claims or claims of discrimination, against the Company or against any of its properties or businesses.

(g) ABSENCE OF CERTAIN CHANGES. Since December 31, 2003, the Company has conducted its business only in the ordinary course and there has not occurred, except as set forth in the Recent Reports or any exhibit thereto or incorporated by reference therein, any event the could reasonably be expected to have a Material Adverse Effect on the Company or any of its Subsidiaries.

(h) NO UNDISCLOSED LIABILITIES. Except as set forth in the Recent Reports, and except for liabilities and obligations incurred in the ordinary course of business since December 31, 2003, as of the Agreement Date, to the Company's knowledge, (i) the Company does not have any material liabilities or obligations (absolute, accrued, contingent or otherwise) which, and (ii) there has not been any aspect of the prior or current conduct of the business of the Company or its Subsidiaries which may form the basis for any material claim by any third party which, if asserted could result in any such material liabilities or obligations which, are not fully reflected, reserved against or disclosed in the balance sheet of the Company as at December 31, 2003.

(i) CAPITALIZATION. The authorized capital stock of the Company consists of 100,000,000 shares of Common Stock of which 42,833,830 shares are issued and 42,810,665 are outstanding as of the Agreement Date and 1,000,000 shares of preferred stock, par value \$0.01 per share, of which none are issued and outstanding as of the Agreement Date. All issued and outstanding shares of the Company's capital stock have been duly authorized and were validly issued, and are fully paid and nonassessable. No securities issued by the Company from October 31, 2000 to the date hereof were issued in violation of any statutory or common law preemptive rights. Upon issuance pursuant to the terms of this Agreement, all Shares and Warrant Shares shall be duly authorized, validly issued and outstanding, and fully paid and nonassessable and such shares shall not have been issued in violation of any statutory or contractual preemptive rights. There are no dividends which have accrued or been declared but are

unpaid on the capital stock of the Company. All taxes required to be paid by Company in connection with the issuance and any transfers of the Company's capital stock have been paid. All permits or authorizations required to be obtained from or registrations required to be effected with any person or entity in connection with any and all issuances of securities of the Company from October 31, 2000 to the Agreement Date have been obtained or effected, and all securities of the Company have been issued and are held in accordance with the provisions of all applicable securities or other laws. A true and complete capitalization table of the Company as of the Agreement Date is set forth in Schedule 3(i). No shares of capital stock of the Company are subject to preemptive rights or any other similar rights of the stockholders of the Company or any liens or encumbrances imposed through the actions or failure to act of the Company. Except as disclosed in Schedule 3(i), as of the effective date of this Agreement, (i) there are no outstanding options, warrants, scrip, rights to subscribe for, puts, calls, rights of first refusal, agreements, understandings, claims or other commitments or rights of any character whatsoever relating to, or securities or rights convertible into or exchangeable for any shares of capital stock of the Company, or arrangements by which the Company is or may become bound to issue additional shares of capital stock of the Company, (ii) there are no agreements or arrangements under which the Company is obligated to register the sale of any of its or their securities under the 1933 Act and (iii) there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) that will be triggered by the issuance of the Shares, Warrants or Warrant Shares (including the issuance of the Warrant Shares upon exercise of the Warrants).

(j) GOVERNMENT AUTHORIZATIONS. Except as disclosed in the Recent Reports, the Company holds all material authorizations, consents, approvals, franchises, licenses and permits required under applicable law or regulation for the operation of the business of the Company as presently operated (the "GOVERNMENTAL AUTHORIZATIONS"). All the Governmental Authorizations have been duly issued or obtained and are in full force and effect, and the Company is in material compliance with the terms of all the Governmental Authorizations. The Company has not engaged in any activity that, to its knowledge, would cause revocation or suspension of any such Governmental Authorizations. The Company has no knowledge of any facts which could reasonably be expected to cause the Company to believe that the Governmental Authorizations will not be renewed by the appropriate governmental authorities in the ordinary course. Neither the execution, delivery nor performance of this Agreement shall adversely affect the status of any of the Governmental Authorizations.

(k) BROKERS. No broker, finder or investment banker is entitled to any brokerage, finder's or other fee or commission in connection with the transactions contemplated by this Agreement, based upon any arrangement made by or on behalf of the Company, which would make the Company or any Investor liable for any fees or commissions.

(l) SECURITIES LAWS. Neither the Company nor any agent acting on behalf of the Company has taken any action which might cause this Agreement or the Shares or Warrants to violate the Securities Act or the Exchange Act or any rules or regulations promulgated thereunder, as in effect on the Closing Date. Assuming that all of the representations and warranties of the Investors set forth in Section 4 are true and correct, the offer, sale and issuance of the Shares and Warrants in conformity with the terms of this Agreement are exempt from the registration requirements of Section 5 of the Securities Act and from the qualification or registration requirements of applicable "blue sky" laws.

(m) ISSUANCE OF SHARES. The Shares are duly authorized and, upon issuance in accordance with the terms of this Agreement will be validly issued, fully paid, and non-assessable and free from all taxes, liens, claims and encumbrances with respect to the issue thereof and shall not be subject to preemptive rights or other similar rights of stockholders of the Company and will not impose personal liability on the holder thereof. The Warrant Shares are duly authorized and reserved for issuance, and, when issued upon exercise of or otherwise pursuant to the Warrants, respectively, in accordance with the terms thereof, will be validly issued, fully paid and non-assessable, and free from all taxes, liens, claims and encumbrances and will not be subject to preemptive rights or other similar rights of stockholders of the Company and will not impose personal liability upon the holder thereof.

(n) INTERNAL ACCOUNTING CONTROLS. The Company maintains a system of internal accounting controls sufficient, in the judgment of the Company's board of directors, to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(o) NO INVESTMENT COMPANY. The Company is not, and upon the issuance and sale of the Shares and Warrants as contemplated by this Agreement will not be, an "investment company" required to be registered under the Investment Company Act of 1940 (an "INVESTMENT COMPANY"). The Company is not controlled by an Investment Company.

(p) SARBANES-OXLEY ACT. The Company is in substantial compliance with the applicable provisions of the Sarbanes-Oxley Act of 2002 (the "SARBANES-OXLEY ACT"), and the rules and regulations promulgated thereunder, that are effective and intends to comply substantially with other applicable provisions of the Sarbanes-Oxley Act, and the rules and regulations promulgated thereunder, upon the effectiveness of such provisions.

(q) BENEFICIAL HOLDINGS OF BURNHAM HILL PARTNERS. Burnham Hill Partners ("BHP"), a division of Pali Capital, Inc. and the Company's placement agent with respect to the purchase and sale of the Shares and the issuance of the Warrants, has advised the Company that certain employees of BHP and their family members (acting separately and not as a group) own approximately 12% of the outstanding shares of Common Stock as of the Agreement Date and without giving effect to the purchase and sale of the Shares.

4. REPRESENTATIONS AND WARRANTIES OF THE INVESTOR. Each Investor, for itself only, hereby severally and not jointly, represents and warrants to the Company as follows:

(a) EXEMPT TRANSACTION; UNREGISTERED SHARES AND WARRANTS. The Investor understands that the Shares and Warrants are being offered and sold in reliance on one or more exemptions from registration provided for under the Securities

Act, and that the Company's reliance upon such exemptions is predicated, in part, upon the Investor's representations and warranties set forth in this Agreement. The Investor acknowledges that it is purchasing the Shares and Warrants without being offered or furnished any offering literature or prospectus. The Investor understands that neither the Commission, nor any governmental agency charged with the administration of the securities laws of any jurisdiction nor any other governmental agency has passed upon or reviewed the merits or qualifications of, or recommended or approved the offer and sale of the Shares and Warrants pursuant to the terms of this Agreement.

(b) INVESTMENT INTENT; ACCREDITATION; AUTHORITY. The Investor is acquiring the Shares and Warrants for investment for the Investor's own account, not as nominee or agent, for investment and not with a view to, or for resale in connection with, any distribution or public offering thereof within the meaning of the Securities Act; provided, however, that by making the representations herein, the Investor reserves the right to dispose of the Shares, Warrants or Warrant Shares at any time in accordance with this Agreement or the Warrant, as applicable, and in accordance with or pursuant to a registration statement or an exemption under the Securities Act. The Investor is an "accredited investor" within the meaning of the Securities Act. The Investor has the full right, power, authority and capacity to enter into and perform this Agreement, the terms of this Agreement constitute valid and binding obligations of the Investor enforceable in accordance with their terms, except as the same may be limited by equitable principles and by bankruptcy, insolvency, moratorium, and other laws of general application affecting the enforcement of creditors' rights.

(c) KNOWLEDGE AND EXPERIENCE. The Investor (i) has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of the Investor's prospective investment in the Shares and Warrants; (ii) has the ability to bear the economic risks of the Investor's prospective investment; (iii) has been furnished with and has had access to such information as the Investor has considered necessary to make a determination as to the purchase of the Shares and Warrants together with such additional information as is necessary to verify the accuracy of the information supplied; and (iv) has had all questions which have been asked by the Investor satisfactorily answered by the Company.

(d) RESTRICTED SECURITIES. The Investor understands that the Shares and Warrants are "restricted securities" as such term is defined in Rule 144 of Regulation D promulgated under the Securities Act ("RULE 144") and must be held indefinitely unless they are subsequently registered or qualified under applicable state and federal securities laws or an exemption from such registration or qualification is available. The Investor understands that he, she or it may resell the Shares and Warrant Shares pursuant to Rule 144 only after the satisfaction of certain requirements, including the requirement that the Shares and Warrants Shares be held for at least one year prior to resale.

(e) NO OBLIGATION TO REGISTER. The Investor further acknowledges and understands that, except as provided in the Registration Rights Agreement, the Company is under no obligation to register the Shares, Warrants or Warrant Shares. The Investor understands that the certificate evidencing the Shares, Warrants and Warrant Shares will be imprinted with a legend which prohibits the

transfer of the Shares, Warrants and Warrant Shares unless they are registered or such registration is not required in the opinion of counsel in form and substance satisfactory to the Company.

(f) FOREIGN INVESTOR REPRESENTATION. If the Investor is not a "U.S. person" (as such term is defined in Rule 902(k) of Regulation S promulgated under the Securities Act), such Investor hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Shares and Warrants or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Shares and Warrants, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the Shares and Warrants. Such Investor's subscription and payment for, and its continued beneficial ownership of the Shares and Warrants, will not violate any applicable securities or other laws of its jurisdiction.

(g) DOMICILE. The Investor is a bona fide resident and domiciliary (not a temporary or transient resident) of the state indicated on Schedule 1 hereto and he, she or it has no present intention of becoming a resident of any other state or jurisdiction.

(h) NO NEED FOR LIQUIDITY. The Investor's aggregate holding of securities that are "restricted securities" or otherwise not readily marketable is not excessive in view of the Investor's net worth and financial circumstances and the purchase of the Shares and Warrants will not cause such commitment to become excessive.

(i) INDEPENDENT ADVICE. The Investor understands that the Company urges the Investor to seek independent advice from professional advisors relating to the suitability for the Investor of an investment in the Company in view of the Investor's overall financial needs and with respect to legal and tax implications of such an investment.

5. RELIANCE. The Investor understands that the Company may rely on the representations and warranties in Section 4 in determining whether to permit the Investor to purchase the Shares and Warrants. If for any reason any representations and warranties are no longer true and accurate prior to the Closing Date, the Investor will give the Company prompt written notice of the inaccuracy. By signing below, the Investor represents that the Investor has read and confirmed the truth and accuracy of each of the foregoing representations and warranties.

6. ADDITIONAL COVENANTS OF THE PARTIES.

(a) INDEMNIFICATION. Each party agrees to indemnify and hold harmless the other parties hereto and each of its directors, officers, agents and affiliates (as applicable) from and against any and all loss, damage or liability due to or arising out of a breach of any representation, warranty or covenant of contained in this Agreement and made by the indemnifying party, provided however, that this Section 6 shall not be construed to require any Investor (i) to so indemnify and hold harmless any other Investor or (ii) to so indemnify and hold harmless the Company for any such breach by any other Investor. The liability of any Investor to provide indemnification pursuant to this Section 6 shall be limited to the amount such Investor paid to the Company for the purchase of such Investor's Shares and Warrants.

(b) PLEDGE OF SECURITIES. The Company acknowledges and agrees that the Shares, Warrants and Warrant Shares may be pledged by an Investor in connection with a bona fide margin agreement or other loan or financing arrangement that is secured by the Shares Warrants or Warrant Shares. The pledge of the Shares, Warrants or Warrant Shares shall not be deemed to be a transfer, sale or assignment of the Shares, Warrants or Warrant Shares hereunder, and no Investor effecting a pledge of Shares, Warrants or Warrant Shares shall be required to provide the Company with any notice thereof or otherwise make any delivery to the Company pursuant to this Agreement or any other Transaction Agreement. The Company hereby agrees to execute and deliver such documentation as a pledgee of the Shares, Warrants or Warrant Shares may reasonably request in connection with a pledge of the thereof to such pledgee by an Investor.

(c) SECURITIES LAWS DISCLOSURE; PUBLICITY. The Company shall (i) on or promptly after the Closing Date, issue a press release acceptable to SDS disclosing the transactions contemplated hereby, and (ii) promptly after the Closing Date, file with the Commission a Report on Form 8-K disclosing the transactions contemplated hereby. Except as provided in the preceding sentence, neither the Company nor the Investors shall make any press release or other publicity about the terms of this Agreement or the transactions contemplated hereby without the prior approval of the other unless otherwise required by law, regulation or the rules of the Commission. In addition, the Company agrees that it shall not disclose, and shall not include in any public filing or other announcement, the name of any Investor, unless expressly agreed to in writing by such Investor or unless and until such disclosure is, in the reasonable opinion of counsel to the Company, required by law or applicable regulation, and then only to the extent of such requirement.

(d) LISTING. The Company shall promptly secure the listing of the Shares and Warrant Shares (and any Registrable Securities (as defined in the Registration Rights Agreement) that may from time to time be issued or issuable) upon each national securities exchange or automated quotation system or bulletin board, if any, upon which shares of Common Stock are then listed (subject to official notice of issuance) and, so long as any of the Investors owns any of the Registrable Securities (as defined in the Registration Rights Agreement), shall maintain, so long as any other shares of Common Stock shall be so listed, such listing of all Shares issued pursuant to this Agreement and Warrant Shares issuable upon exercise of or otherwise pursuant to the Warrants, and any Registrable Securities (as defined in the Registration Rights Agreement) that may from time to time be issued or issuable. To the extent that any Common Stock is so listed, the Company will obtain and, so long as the Investor owns any of the Registrable Securities (as defined in the Registration Rights Agreement), maintain the listing and trading of its Common Stock on the Nasdaq SmallCap, the Nasdaq National Market, the New York Stock Exchange, or the American Stock Exchange and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of any exchanges or automated quotation systems on which the Common Stock is then listed.

7. RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(a) LEGEND. The instruments representing the Shares, Warrants and, if applicable, Warrant Shares shall bear the following legend or similar legend (as well as any legends required by applicable state and federal corporate and securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

(b) REMOVAL OF LEGEND AND TRANSFER RESTRICTIONS. Any legend endorsed on a certificate pursuant to this Section 7 shall be removed, and the Company shall issue a certificate without such legend to the holder of such Shares or Warrant Shares if (i) such Shares or Warrant Shares are resold pursuant to a registration statement under the Securities Act, and a prospectus meeting the requirements of Section 11 of the Securities Act is delivered or deemed delivered to the purchaser of such Shares or Warrant Shares, (ii) if such holder satisfies the requirements of Rule 144(k) or (iii) if such holder provides the Company with an opinion of counsel for such holder of the Shares or Warrant Shares, reasonably satisfactory to the Company, to the effect that a sale, transfer or assignment of such Shares or Warrant Shares may be made without registration.

8. PRICE PROTECTION. If the Company issues or sells any shares of its Common Stock or Common Stock Equivalents, other than Excluded Shares (as that term is defined below) ("ADDITIONAL SHARES") at any time after the Closing Date and prior to June 30, 2004 (the "ADJUSTMENT PERIOD") for a consideration per share (the "DILUTIVE PRICE") (a) less than the Share Price (as adjusted for stock splits, stock dividends and the like) and (b) if Additional Shares have been previously issued during the Adjustment Period with respect to which the Company has fully complied with this Section 8, then also less than the lowest Dilutive Price (as adjusted for stock splits, stock dividends and the like) at which such Additional Shares have been previously issued during the Adjustment Period, then the Company will issue to each Investor a number of shares, if positive, of Common Stock to such Investor determined by the following formula:

$$X = (A * B / C) - (A + D)$$

Where: X = the number of shares of Common Stock to be issued to the Investor, rounded to the nearest whole number;

A = the number of Shares (as adjusted for stock splits, stock dividends and the like) then held by such Investor;

- B = the Share Price (as adjusted for stock splits, stock dividends and the like);
- C = the applicable Dilutive Price; and
- D = the aggregate number of shares of Common Stock (as adjusted for stock splits, stock dividends and the like) issued to the Investor pursuant to this Section 8 prior to the date of such determination.

For purposes of this Agreement, the term "EXCLUDED SHARES" means: (i) shares of Common Stock issuable or issued after the Closing Date to officers, employees, consultants or directors of the Company directly or pursuant to a stock purchase, stock option, restricted stock or other written compensation plan or agreement approved by the Board of Directors of the Company (the "BOARD"); (ii) shares of Common Stock issued or issuable after the Closing Date, primarily for non-equity financing purposes and as approved by the Board, to financial institutions or lessors in connection with commercial credit arrangements, equipment financings or similar transactions or to vendors of goods or services or customers; (iii) shares of Common Stock issuable upon (a) exercise of warrants, options, notes or other rights to acquire securities of the Company, in each case, outstanding on the date of this Agreement, (b) conversion of shares of the Company's Preferred Stock, par value \$0.01 per share outstanding on the date of this Agreement or (c) exchange of promissory notes issued by the Company outstanding on the date of this Agreement; (iv) capital stock or warrants or options to purchase capital stock issued in connection with bona fide acquisitions, mergers or similar transactions, the terms of which are approved by the Board; (v) shares of Common Stock issued or issuable to licensors of technology of the Company to pay expenses, royalties or milestone payments for which the Company is obligated under any licensing or related agreement; (vi) shares of Common Stock issuable or issued pursuant to stock splits, stock dividends and the like, or (vii) shares of Common Stock issued or issuable by way of dividend or other distribution on Excluded Shares.

If the Company shall issue or sell any warrants or other rights to subscribe for or purchase any additional shares of Common Stock or any securities convertible into shares of Common Stock (collectively, "COMMON STOCK EQUIVALENTS") during the Adjustment Period, whether or not the rights to exchange or convert thereunder are immediately exercisable, and the effective price per share for which Common Stock is issuable upon the exercise, exchange or conversion of such Common Stock Equivalents shall be less than (i) the Share Price (as adjusted for stock splits, stock dividends and the like) and (ii) if Additional Shares have been previously issued during the Adjustment Period with respect to which the Company has fully complied with this Section 8, then also less than the lowest Dilutive Price (as adjusted for stock splits, stock dividends and the like) at which such Additional Shares have been previously issued during the Adjustment Period, then the Company shall issue to the Investor that number of shares of Common Stock that would be issuable pursuant to this Section 8 on the basis that the maximum number of additional shares of Common Stock issuable pursuant to all such Common Stock Equivalents shall be deemed to have been issued and outstanding and the Company shall have received all of the consideration payable therefor, if any, as of the date of the actual issuance of such Common Stock Equivalents. No further issuances shall be made under this Section 8 upon the actual issue of such Common Stock upon the exercise, conversion or exchange of such Common Stock Equivalents, unless such actual issue is at a per share consideration lower than the Dilutive Price used for purposes of the initial adjustment pursuant to this Section 8.

9. PARTICIPATION RIGHTS.

(a) Subject to the terms and conditions specified in this Section 9, the Company hereby grants to each Investor a right of first offer with respect to sales by the Company of Additional Shares, which in no event shall include Excluded Shares, on the same terms and conditions as offered by the Company to the other purchasers of such Additional Shares. If the Company proposes to offer any Additional Shares for sale at any time after June 30, 2004 and before the first anniversary of the Closing Date, the Company shall make an offering of such Additional Shares to each Investor in accordance with the following provisions:

(i) The Company shall deliver a notice (the "ISSUANCE NOTICE") to each Investor stating (A) its bona fide intention to offer such Additional Shares, (B) the number of such Additional Shares to be offered, (C) the price and terms, if any, upon which it proposes to offer such Additional Shares, and (D) the anticipated closing date of the sale of such Additional Shares.

(ii) By written notification received by the Company, within five trading days after giving of the Issuance Notice (the "RESPONSE PERIOD"), any Investor may elect to purchase or obtain, at the price and on the terms specified in the Issuance Notice, up to its Pro Rata Amount (as defined below) of such Additional Shares. The "PRO RATA AMOUNT" for any given Investor shall equal that portion of the Additional Securities the price of which is equal to 50% of the aggregate purchase price that such Investor paid to the Company upon the Closing under this Agreement, and in such event the Company shall be obligated to sell such number of Additional Securities to each such Investor, even if the aggregate Pro Rata Amount for all such Investors exceeds the aggregate amount of Additional Securities that the Company had initially proposed to offer. Any such purchase shall be completed at the same closing as that of any third party purchasers or at an additional closing thereunder.

(iii) The Company may, during the 75-day period following the expiration of the Response Period, offer the remaining unsubscribed portion of such Additional Shares to any person or persons on substantially similar terms to those specified in the Issuance Notice. If the Company does not consummate the sale of such Additional Shares within such period or if such Additional Shares are offered on terms not substantially similar to the terms of the offer specified in the Issuance Notice, the right provided hereunder shall be deemed to be revived and such Additional Shares shall not be offered or sold unless first reoffered to the Investors in accordance herewith.

(b) The participation right set forth in this Section 9 may not be assigned or transferred, except that such right is assignable by each Investor to any wholly-owned subsidiary or parent of, or to any corporation or entity that is, within the meaning of the Securities Act, controlling, controlled by or under common control with, any such Investor, provided in any event that such assignee is an "accredited investor" as such term is defined in Rule 501(a) promulgated under the Securities Act.

10. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement, all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the state of California, without giving effect to principles of choice of law.

(b) JURISDICTION AND VENUE. Any legal action or other legal proceeding relating to this Agreement or the enforcement of any provision of this Agreement shall be brought or otherwise commenced in any state or federal court located in the County of San Diego, California. Each party to this Agreement: (i) expressly and irrevocably consents and submits to the jurisdiction of each state and federal court located in the County of San Diego, California and each appellate court located in the state of California, in connection with any such legal proceeding; (ii) agrees that each state and federal court located in the County of San Diego, California shall be deemed to be a convenient forum; and (iii) agrees not to assert, by way of motion, as a defense or otherwise, in any such legal proceeding commenced in any state or federal court located in the County of San Diego, California any claim that such party is not subject personally to the jurisdiction of such court, that such legal proceeding has been brought in an inconvenient forum, that the venue of such proceeding is improper or that this Agreement or the subject matter of this Agreement may not be enforced in or by such court.

(c) ENTIRE AGREEMENT. This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

(d) NOTICES. All notices and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in person or facsimile transmission (received at the facsimile machine to which it is transmitted prior to 5:00 p.m., local time, on a business day in the State of California, for the party to which it is sent), by courier or express delivery service or by registered or certified mail (postage prepaid, return receipt requested) to the respective parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this Section):

if to the Company:

ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131
Attention: Nicholas J. Virca
Facsimile: (858) 271-9678

with a copy to (not to constitute notice): Bingham McCutchen LLP
3 Embarcadero Center
San Francisco, CA 94111-4067
Attention: Henry D. Evans, Jr.
Facsimile: (415) 393-2286

if to the Investor: To the address set forth in Schedule 1 hereto.

(e) AMENDMENTS AND WAIVERS. Any term of this Agreement may be amended, waived or departed from only with the written consent of the Company and the holders of a majority of the Shares then held by Investors. Any amendment or waiver effected in accordance with this Section 10(e) shall be binding upon each party to this Agreement, whether or not such party has signed such amendment or waiver. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent. No such amendment shall be effective to the extent that it applies to less than all of the Investors or their Shares, Warrants and Warrant Shares then outstanding. No consideration shall be offered or paid to any person to amend or consent to a waiver or modification of any provision of this Agreement, the Registration Rights Agreement or the Warrants unless the same consideration also is offered to all the parties to this Agreement or the Registration Rights Agreement or holders of the Warrants, as the case may be. The Company shall give prompt written notice to an Investor of any amendment hereof or waiver hereunder that was effected without the Investor's written consent.

(f) SUCCESSORS AND ASSIGNS. This Agreement is personal to each of the parties and may not be assigned without the written consent of the other parties; provided, however, that any of the Investors shall be permitted to assign this Agreement to any person to whom it assigns or transfers securities issued or issuable pursuant to this Agreement in compliance with applicable securities laws and this Agreement. Any assignee must be an "accredited investor" as defined in Rule 501(a) promulgated under the Securities Act.

(g) SEVERABILITY. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Agreement shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions of this Agreement shall nevertheless remain in full force and effect.

(h) INTERPRETATION. The parties hereto acknowledge and agree that: (i) each party and such party's counsel has reviewed the terms and provisions of this Agreement; (ii) the rule of construction to the effect that any ambiguities are resolved against the drafting party shall not be employed in the interpretation of this Agreement; and (iii) the terms and provisions of this Agreement shall be construed fairly as to the parties hereto and not in favor of or against any party, regardless of which party was generally responsible for

the preparation of this Agreement. Whenever used herein, the singular number shall include the plural, the plural shall include the singular, the use of any gender shall include all persons.

(i) HEADINGS AND CAPTIONS. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and shall in no way modify, or affect the meaning or construction of any of the terms or provisions hereof.

(j) NO WAIVER OF RIGHTS, POWERS AND REMEDIES. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

(k) SURVIVAL OF REPRESENTATIONS AND WARRANTIES. All representations and warranties made by the parties hereto in this Agreement, shall survive (i) the execution and delivery hereof, (ii) any investigations made by or on behalf of the parties and (iii) the closing of the transaction contemplated hereby.

(l) EXPENSES. Except as otherwise provided in any other Transaction Agreement, the Company and each Investor shall each be responsible for the payment of and bear their own expenses and legal fees relating to the preparation and negotiation of the Transaction Agreements and the consummation of the Transactions, provided, however, that in the event of the successful consummation of the transactions contemplated by this Agreement, the Company shall pay the reasonable legal fees and other third-party expenses, up to \$45,000, of SDS incurred with respect to the preparation and negotiation of the Transaction Agreements and the consummation of the transactions hereunder.

(m) COUNTERPARTS AND FACSIMILE DELIVERY. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any signature page delivered by facsimile or other electronic image transmission shall be binding to the same extent as an original signature page, with regard to any agreement subject to the terms hereof or any amendment thereto. Any party who delivers such a signature page agrees to later deliver an original counterpart to any party who requests it.

(n) SECURITIES LAW COMPLIANCE.

(i) SECURITIES ACT. The Company shall timely prepare and file with the Commission the form of notice of the sale of securities pursuant to

the requirements of Regulation D regarding the sale of the Shares and Warrants under this Agreement.

(ii) STATE SECURITIES LAW COMPLIANCE -- SALE. The Company shall timely prepare and file such applications, consents to service of process (but not including a general consent to service of process) and similar documents and take such other steps and perform such further acts as shall be required by the state securities law requirements of each jurisdiction where an Investor resides, as indicated on Schedule 1, with respect to the sale of the Shares and Warrants under this Agreement.

(iii) STATE SECURITIES LAW COMPLIANCE --RESALE. Beginning no later than June 30, 2004 and continuing until (i) the purchasers have sold all of their Registrable Securities under a Registration Statement pursuant to Section 8 or (ii) the Common Stock becomes a "covered security" under Section 18(b)(1)(A) of the Securities Act, the Company shall maintain within either Moody's Industrial Manual or Standard and Poor's Standard Corporation Descriptions (or any successors to these manuals which are similarly qualified as "recognized securities manuals" under state Blue Sky laws) an updated listing containing (i) the names of the officers and directors of the Company, (ii) a balance sheet of the Company as of a date that is at no time older than eighteen months and (iii) a profit and loss statement of the Company for either the preceding fiscal year or the most recent year of operations. Capitalized terms used in this Section 10(n)(iii), but not otherwise defined in this Agreement, shall have the meanings assigned in the Registration Rights Agreement.

(o) INDEPENDENT NATURE OF INVESTORS' OBLIGATIONS AND RIGHTS. The obligations of each Investor under the Transaction Agreements are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under any such agreement. Nothing contained in any Transaction Agreement, and no action taken by any Investor pursuant thereto, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Investors are in any way acting in concert or as a group with respect to such obligations or the Transactions. Each Investor shall be entitled to independently protect and enforce its rights, including without limitation, the rights arising out of the Transaction Agreements, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose. Each Investor represents that it has been represented by its own separate legal counsel in its review and negotiation of the Transaction Agreements. For reasons of administrative convenience only, the Investors acknowledge and agree that they and their respective counsel have chosen to communicate with the Company and its counsel through Wiggin, but neither Wiggin nor the Company's counsel represent any of the Investors in this transaction, except that Wiggin represents SDS.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Name: Nicholas J. Virca

Title: President and Chief Executive Officer

[Investor signature pages follow.]

OMNIBUS SIGNATURE PAGE

ADVENTRX PHARMACEUTICALS, INC.

COMMON STOCK AND WARRANT PURCHASE AGREEMENT

The undersigned hereby executes and delivers the Common Stock and Warrant Purchase Agreement (the "AGREEMENT") to which this signature page is attached, which, together with all counterparts of the Agreement and signature pages of the other parties named in the Agreement, shall constitute one and the same document in accordance with the terms of the Agreement.

Print Name: [see Schedule I attached hereto]

By: -----

Name: -----

Title: -----

Address: -----

Telephone: -----

Facsimile: -----

SSN/EIN#: -----

Number of Shares of Common Stock
Purchased -----

Number of A-1 Warrants Purchased -----

Number of A-2 Warrants Purchased -----

Aggregate Purchase Price -----

SCHEDULE 1

Adventrx Pharmaceuticals, Inc.

Common Stock and Warrant Purchase Agreement

Investors and Shares of Common Stock and Warrants

[Each of the persons listed below are parties to this Common Stock and Warrant Purchase Agreement]

INVESTOR NAME	INVESTMENT AMOUNT	NUMBER OF COMMON SHARES (@ \$1.50)	NUMBER OF A-1 WARRANTS @ \$2.00 (30%)	NUMBER OF A-2 WARRANTS @ \$2.50 (20%)	DOMICILE
Alpha Capital AG	\$500,000	333,333	99,999	66,666	NY
Anasazi Partners III LLC	\$175,000	116,666	34,999	23,333	MA
Anasazi Partners III Offshore Fund Ltd.	\$175,000	116,666	34,999	23,333	MA
Andrew J. Maffey	\$25,500	17,000	5,100	3,400	NJ
Bank Sal. Oppenheim jr. & Cie (Switzerland) Limited	\$7,500	5,000	1,500	1,000	Switzerland
BayStar Capital II, L.P.	\$300,000	200,000	60,000	40,000	CT
Bristol Investment Fund, Ltd.	\$400,000	266,666	79,999	53,333	CA
BSI New BioMedical Frontier (SICAV)	\$150,000	100,000	30,000	20,000	Switzerland
BSI SA	\$149,250	99,500	29,850	19,900	Switzerland
Capital Ventures International	\$1,000,000	666,666	199,999	133,333	CA
Castle Creek Healthcare Partners LLC	\$500,001	333,334	100,000	66,666	IL
Centrum Bank AG	\$45,000	30,000	9,000	6,000	Liechtenstein
Christopher P. Baker	\$150,000	100,000	30,000	20,000	MA
Clariden Investments Ltd.	\$40,500	27,000	8,100	5,400	Switzerland
Crescent International Ltd	\$270,000	180,000	54,000	36,000	Switzerland
Crestview Capital Master, LLC	\$1,000,000	666,666	199,999	133,333	IL
E Todd Tracy	\$150,000	100,000	30,000	20,000	TX
Enable Growth Partners	\$300,000	200,000	60,000	40,000	CA
Gamma Opportunity Capital Partners, LP	\$400,000	266,666	79,999	53,333	FL
Gene Salkind, MD	\$90,000	60,000	18,000	12,000	PA
Greenwich Growth Fund Limited	\$100,000	66,666	19,999	13,333	Ontario, Canada
James Ladner	\$30,000	20,000	6,000	4,000	Switzerland
JIBS Equities	\$200,000	133,333	39,999	26,666	PA
Kenneth Greif	\$500,000	333,333	99,999	66,666	NJ
Laddcap Value Partners LP	\$150,000	100,000	30,000	20,000	NY
LB (Swiss) Privatbank AG	\$37,500	25,000	7,500	5,000	Switzerland
Lilienthal Investment Foundation	\$51,000	34,000	10,200	6,800	NC
Longview Fund, LP	\$250,000	166,666	49,999	33,333	CA
Michael Loew	\$50,000	33,333	9,999	6,666	NY
North Sound Legacy Fund LLC	\$18,000	12,000	3,600	2,400	CT
North Sound Legacy Institutional Fund LLC	\$198,000	132,000	39,600	26,400	CT
North Sound Legacy International Ltd	\$384,000	256,000	76,800	51,200	CT
OTAPE Investments LLC	\$100,000	66,666	19,999	13,333	NY
Paul Scharfer	\$202,500	135,000	40,500	27,000	NY
Peter Levitch	\$75,000	50,000	15,000	10,000	NJ
Platinum Long Term Growth	\$100,000	66,666	19,999	13,333	NY

ProMed Offshore Fund, Ltd.	\$109,500	73,000	21,900	14,600	NY
ProMed Partners II, L.P.	\$146,700	97,800	29,340	19,560	NY
ProMed Partners, L.P.	\$676,500	451,000	135,300	90,200	NY
RHP Master Fund, Ltd.	\$300,000	200,000	60,000	40,000	PA
Richard Reiss	\$37,500	25,000	7,500	5,000	NJ
Ritchie Long/Short Trading Ltd.	\$750,000	500,000	150,000	100,000	IL

INVESTOR NAME	INVESTMENT AMOUNT	NUMBER OF COMMON SHARES (@ \$1.50)	NUMBER OF A-1 WARRANTS @ \$2.00 (30%)	NUMBER OF A-2 WARRANTS @ \$2.50 (20%)	DOMICILE
Robert J. and Sandra S. Neborsky JTWROS	\$30,000	20,000	6,000	4,000	CA
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	\$390,000	260,000	78,000	52,000	CA
Robert Wexler	\$15,000	10,000	3,000	2,000	PA
Roland Hartman	\$37,500	25,000	7,500	5,000	Switzerland
Saad Investments Company Limited	\$225,000	150,000	45,000	30,000	Switzerland
Schroder & Co Bank AG	\$675,000	450,000	135,000	90,000	Switzerland
SDS Capital Group SPC, Ltd.	\$999,999	666,666	199,999	133,333	CT
Sean M. Quinn	\$105,000	70,000	21,000	14,000	NJ
SF Capital Partners Ltd.	\$750,000	500,000	150,000	100,000	WI
Stonestreet LP	\$350,000	233,333	69,999	46,666	Ontario, Canada
Sunrise Overseas, Ltd.	\$249,000	166,000	49,800	33,200	CT
TCMP3 Partners	\$150,000	100,000	30,000	20,000	NJ
Wayne Saker	\$60,000	40,000	12,000	8,000	MA
Whalehaven Fund Limited	\$125,000	83,333	24,999	16,666	Ontario, Canada
William B. Newman	\$51,000	34,000	10,200	6,800	NJ
Xmark Fund, L.P.	\$247,500	165,000	49,500	33,000	NY
Xmark Fund, LTD	\$247,500	165,000	49,500	33,000	NY
TOTALS:	\$15,001,450 =====	10,000,958 =====	3,000,273 =====	2,000,185 =====	

Notices to any Investor pursuant to the Agreement shall be sent to the address in the records of the Company for such Investor.

Name, Address and Fax Number of Investor	Copies of Notices to	Shares of Common Stock Purchased	Common Stock Underlying A-1 Warrants	Common Stock Underlying A-2 Warrants	Purchase Price
					\$

SCHEDULE 3
DISCLOSURE SCHEDULE

EXHIBIT A-1

Form of A-1 Common Stock Purchase Warrant

EXHIBIT A-2

Form of A-2 Common Stock Purchase Warrant

EXHIBIT B

Form of Closing Escrow Agreement

EXHIBIT C

Form of Registration Rights Agreement

EXHIBIT D

Form of Opinion of Company's Counsel

EXHIBIT E

INVESTOR SUITABILITY QUESTIONNAIRE

ADVENTRX PHARMACEUTICALS, INC. (THE "COMPANY")

I. INDIVIDUAL INVESTORS ONLY

(ALL INFORMATION WILL BE TREATED CONFIDENTIALLY)

A. PERSONAL INFORMATION

Name:

(Exact name as it should appear on stock certificate.)

Residence Address:

Home Telephone Number:

Fax Telephone Number:

Email Address:

Social Security Number:

B. DELIVERY INFORMATION (Applicable only if different than residence.)

Name of Institution or Destination:

Contact Name:

Delivery Address:

Account Reference (if applicable):

Contact Telephone Number:

Contact Fax Telephone Number:

Contact Email Address:

C. EMPLOYMENT INFORMATION

Occupation:

Number of Years:

Present Employer:

Position/Title:

Business Address:

Business Telephone:

D. RESIDENT INFORMATION

Set forth in the space provided below the state(s)/country(ies) in which you have maintained your principal residence during the past three years and the date during which you resided in each state/country.

Are you registered to vote in, or do you have a driver's license issued by, or do you maintain a residence in any other state? If yes, in which state(s)?

Yes _____

No _____

E. INCOME

Do you reasonably expect either your own income from all sources during the current year to exceed \$200,000 or the joint income of you and your spouse (if married) from all sources during the current year to exceed \$300,000?

Yes _____

No _____

If not, please specify the amount:

What percentage of your income as shown above is anticipated to be derived from sources other than salary?

.....

Was either your yearly income from all sources during each of the last two years in excess of \$200,000 or was the joint income of you and your spouse (if married) from all sources during each of such years in excess of \$300,000?

Yes _____ No _____

If no, please specify the amount for:

Last Year: _____

Year Before Last: _____

F. NET WORTH

Will your net worth* as of the date you purchase securities of the Company, together with the net worth of your spouse, be in excess of \$1,000,000?

Yes _____ No _____

If not, please specify amount:

* As used in this questionnaire the term "net worth" means the amount by which total assets exceed total liabilities. In computing net worth for purposes of this Item 5, you should value your principal residence at cost, including cost of improvements, or at that value recently appraised by an institutional lender making a secured loan or otherwise by a certified appraiser, net of encumbrances.

G. EDUCATION

Please describe your educational background and degrees obtained, if any.

H. AFFILIATION

If you have any pre-existing personal or business relationship with the Company or any of its officers, directors or controlling persons, please describe the nature and duration of such relationship.

I. BUSINESS AND FINANCIAL EXPERIENCE

Please describe in reasonable detail the nature and extent of your business, financial and investment experience which you believe give you the capacity to evaluate the merits and risks of the proposed investment and the capacity to protect your interests.

Are you purchasing the securities offered for your own account and for investment purposes only?

Yes _____ No _____

If no, please state for whom you are investing and/or the reason for investing.

DATE: _____

INDIVIDUAL INVESTOR:

By: _____
(signature)

Name: _____
(please print)

II. ENTITY INVESTORS ONLY

A. ENTITY NAME AND CONTACT INFORMATION

Name: _____
(Exact name as it should appear on stock certificate.)

Name of Institution or Destination: _____
(Include if different from stock certificate.)

Address: _____

Account Reference (if applicable): _____

Tax Identification Number (if applicable): _____

Contact Name: _____

Contact Telephone Number: _____

Contact Fax Number: _____

Contact Email Address: _____

B. GENERAL INFORMATION

Under the laws of what jurisdiction was the Investor formed?

Was the Investor formed for the purpose of investing in the securities being offered?

Yes _____ No _____

Set forth in the space provided below the (i) state(s), if any, in the United States in which you maintained your principal office during the past two years and the dates during which you maintained your office in each state, (ii) the state(s), if any, in which you are incorporated or otherwise organized, and (iii) the state(s), if any, in which you still pay income taxes:

C. ACCREDITED INVESTOR INFORMATION

(i) Is the Investor a national bank or a banking institution organized under the laws of any state or any territory of the United States or the District of Columbia?

Yes _____ No _____

(ii) Is the Investor a savings and loan association, building and loan association, cooperative bank, homestead association, or similar institution, which is supervised and examined by any state or federal authority having supervision over such institution?

Yes _____ No _____

(iii) Is the Investor a broker or dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934?

Yes _____ No _____

(iv) Is the Investor a company (i) whose primary and predominant business is underwriting insurance and subject to the supervision by a regulatory agency under the laws of any state or territory, or (ii) registered as an investment company under the Investment Company Act of 1940, or (iii) a Small Business Investment Company licensed by the U.S. Small Business Administration?

Yes _____ No _____

(v) Is the Investor a "business development company" within the meaning of the Investment Company Act of 1940 or the Investment Advisers Act of 1940?

Yes _____ No _____

(vi) Is the Investor an employee benefit plan under the Employee Retirement Income Security Act of 1974 (a "PLAN") with assets in excess of \$5,000,000?

Yes _____ No _____

(a) If the Investor is such a Plan, but if the Plan's total assets do not exceed \$5,000,000, are investment decisions for the Plan made by a bank, savings and loan association, insurance company or registered investment adviser acting as fiduciary? (If yes, please specify the name of the fiduciary.)

Yes _____ No _____

Name of Fiduciary: _____

(b) If the Investor is a self-directed Plan, but if the Plan's total assets do not exceed \$5,000,000, are investment decisions made solely by (1) a person or entity that can answer "yes" to one or more questions under paragraphs (i) - (ix) of this Item C; (2) persons whose net worth, or joint net worth with their spouses, exceeds \$1,000,000; (3) persons

whose income without regard to that of their spouses exceeded \$200,000, or whose joint income with their spouses exceeded \$300,000, in each of the last two years and who reasonably expect such person income to exceed \$200,000 or such joint income to exceed \$300,000 this year; or (4) persons who are brokers or dealers registered pursuant to Section 15 of the Securities Exchange Act of 1934? (If yes, please specify the applicable subpart of this question or Item.)

Yes _____ No _____

Subpart or Item: _____

(vii) Is the Investor (A)(1) a tax exempt organization which is qualified under Section 501(c)(3) of the Internal Revenue Code of 1986 as amended, or (2) a corporation, or (3) a Massachusetts or similar business trust, or (4) a partnership, not formed for the specific purpose of acquiring the securities offered, and (B) which has assets in excess of \$5,000,000?

Yes _____ No _____

(viii) Is the Investor a trust, with total assets in excess of \$5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment?

Yes _____ No _____

If yes, please attach a memorandum describing such person's educational background, professional memberships or licenses, current employment, principal business and professional activities during the last five years, and experience as an investor in securities. Include any additional information evidencing that such person has sufficient knowledge and experience in financial matters that such person would be capable of evaluating the merits and risks of investing in the securities being offered.

(ix) Is the Investor an entity in which all of the equity owners are persons who are either (1) entities described in paragraphs (i) through (viii) above; (2) persons whose net worth, or joint net worth with their spouses, exceeds \$1,000,000; (3) persons whose income without regard to that of their spouses exceeded \$200,000, or whose joint income with their spouses exceeded \$300,000, in each of the last two years and who reasonably expect such person income to exceed \$200,000 or such joint income to exceed \$300,000 this year; or (4) persons who are brokers or dealers registered pursuant to Section 15 of the Securities Exchange Act of 1934?

Yes _____ No _____

If an equity owner is an entity described in paragraph (vi) under this Item C, please provide the information required by such paragraph.

The above information has been requested by the Company and will be used solely to confirm that the Company is complying with certain securities regulations. In furnishing the above information, the undersigned acknowledges that the Company will be relying thereon in assessing the requirements of the Securities Act of 1933, as amended, and other applicable securities laws.

The information contained in this questionnaire is true and complete, and the undersigned understands that the Company and its counsel will rely on such information for the purpose of complying with all applicable securities laws, as discussed above. The undersigned agrees to notify the Company promptly of any change in the foregoing information which may occur prior to any purchase by the undersigned of stock from the Company.

Date: -----

ENTITY INVESTOR:

By: -----
(signature)

Name: -----
(please print)

Title: -----
(please print)

THIS WARRANT HAS BEEN, AND THE SHARES OF COMMON STOCK WHICH MAY BE RECEIVED PURSUANT TO THE EXERCISE OF THIS WARRANT WILL BE, ACQUIRED SOLELY FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF. NEITHER THIS WARRANT NOR SUCH SHARES (TOGETHER, THE "SECURITIES") HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH DISPOSITION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT AND OF ANY APPLICABLE STATE SECURITIES LAWS.

NO. WA1-

ISSUED: APRIL 8, 2004

A-1 WARRANT TO PURCHASE COMMON STOCK

THIS CERTIFIES THAT, for good and valuable consideration, [see attached schedule] (the "HOLDER") is entitled to purchase from Adventrx Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), [30% Coverage] [see attached schedule] fully paid and nonassessable shares of Common Stock, par value \$0.001 per share ("COMMON STOCK"), of the Company (as adjusted pursuant to Section 3 hereof) (the "WARRANT SHARES") at a price per share equal to Two Dollars (\$2.00) (as adjusted pursuant to Section 3 hereof) (the "EXERCISE PRICE"), subject to the provisions and upon the terms and conditions hereinafter set forth.

1. METHOD OF EXERCISE; PAYMENT.

(a) Exercise Period. The purchase right represented by this Warrant may be exercised in whole or part by the Holder during the term of this Warrant (as set forth in Section 9 hereof) at any time after the Commencement Date, as defined below, by the surrender of this Warrant (with the notice of exercise form attached hereto as Exhibit A (the "NOTICE OF EXERCISE") duly executed) at the principal office of the Company. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Common Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant, or at the request of the Holder, appropriate notation may be made on this Warrant and the same returned to the Holder.

(b) Exercise. Upon exercise of this Warrant, the Holder shall pay the Company an amount equal to the product of (x) the Exercise Price multiplied by (y) the total number of Warrant Shares purchased pursuant to this Warrant, by wire transfer or certified check payable to the order of the Company or, at any time following the first anniversary of the Warrant Date, if there is not an effective Registration Statement (as defined in the Registration Rights Agreement) with respect to all of the Warrant Shares, then at the option

of the Holder, such amount may be paid by the surrender of a portion of shares of Common Stock then held by the Holder or issuable upon such exercise of this Warrant, which shall be valued and credited toward such amount due to the Company for the exercise of the Warrant based upon the Current Market Price of the Common Stock. The person or persons in whose name(s) any certificate(s) representing the Warrant Shares shall be issuable upon exercise of this Warrant shall be deemed to have become the holder(s) of record of, and shall be treated for all purposes as the record holder(s) of, the Warrant Shares represented thereby (and such Warrant Shares shall be deemed to have been issued) immediately prior to the close of business on the date upon which this Warrant is exercised.

"CURRENT MARKET PRICE" means, in respect of any share of Common Stock on any date herein specified,

(1) if there shall not then be a public market for the Common Stock, the higher of

(a) the book value per share of Common Stock at such date, and

(b) the value per share of Common Stock at such date as determined in good faith by the Board,

or

(2) if there shall then be a public market for the Common Stock, the higher of (x) the book value per share of Common Stock at such date, and (y) the average of the daily market prices for the 10 consecutive trading days immediately before such date. The daily market price (the "DAILY MARKET PRICE") for each such trading day shall be (i) the closing price on such day on the principal stock exchange (including Nasdaq) on which such Common Stock is then listed or admitted to trading, or quoted, as applicable, (ii) if no sale takes place on such day on any such exchange, the last reported closing price on such day as officially quoted on any such exchange (including Nasdaq), (iii) if the Common Stock is not then listed or admitted to trading on any stock exchange, the last reported closing bid price on such day in the over-the-counter market, as furnished by the National Association of Securities Dealers Automatic Quotation System or the National Quotation Bureau, Inc., (iv) if neither such corporation at the time is engaged in the business of reporting such prices, as furnished by any similar firm then engaged in such business, or (v) if there is no such firm, as furnished by any member of the National Association of Securities Dealers, Inc. (the "NASD") selected mutually by the holder of this Warrant and the Company or, if they cannot agree upon such selection, as

selected by two such members of the NASD, one of which shall be selected by holder of this Warrant and one of which shall be selected by the Company.

(c) Stock Certificates. In the event of the exercise of this Warrant, certificates for the Warrant Shares so purchased shall be delivered to the Holder within a reasonable time after exercise, but in no case later than the date that is three business days following receipt by the Company of a Notice of Exercise duly completed and executed.

2. STOCK FULLY PAID; RESERVATION OF SHARES. All of the Warrant Shares issuable upon the exercise of the rights represented by this Warrant will, upon issuance and receipt of the Exercise Price therefor, be fully paid and nonassessable, and free from all preemptive rights, rights of first

refusal or first offer, taxes, liens and charges with respect to the issuance thereof. During the period within which the rights represented by this Warrant may be exercised, the Company shall at all times have authorized and reserved for issuance a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant.

3. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF SHARES. The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price therefor shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification, Consolidation or Reorganization. In case of any reclassification of the Common Stock (other than a change in par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation (other than a Change of Control, as defined below) (any of which is a "REORGANIZATION TRANSACTION"), the Company, or such successor corporation as the case may be, shall execute a new warrant, providing that the Holder shall have the right to exercise such new warrant, and procure upon such exercise and payment of the same aggregate Exercise Price, in lieu of the Warrant Shares theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other securities, money and property as would be payable for the Warrant Shares issuable upon exercise of this Warrant as if such Warrant Shares were outstanding on the consummation of the Reorganization Transaction. For purposes of this Warrant, the term "CHANGE OF CONTROL" shall mean (i) any acquisition of the Company by means of merger, acquisition, or other form of corporate reorganization in which outstanding shares of the Company are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary or parent (other than a reincorporation transaction or change of domicile) and pursuant to which the holders of the outstanding voting securities of the Company immediately prior to such consolidation, merger or other transaction fail to hold equity securities representing a majority of the voting power of the Company or surviving entity immediately following such consolidation, merger or other transaction (excluding voting securities of the acquiring corporation held by such holders prior to such transaction) or (ii) a sale of all or substantially all of the assets of the Company.

(b) Stock Splits, Dividends and Combinations. In the event that the Company shall at any time subdivide the outstanding shares of Common Stock, or shall issue a stock dividend on its outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such subdivision or to the issuance of such stock dividend shall be proportionately increased, and the Exercise Price shall be proportionately decreased, and in the event that the Company shall at any time combine the outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such combination shall be proportionately decreased, and the Exercise Price shall be proportionately increased, effective at the close of business on the date of such subdivision, stock dividend or combination, as the case may be.

(c) Issuance of Additional Shares.

(i) If at any time while this Warrant is outstanding and after June 30, 2004, the Company shall issue or sell any shares of its Common Stock (other than Excluded Shares (as that term is defined below), "ADDITIONAL SHARES") in exchange for consideration in an amount per Additional Share less than the Exercise Price at the time the Additional Shares are issued or sold, then the Exercise Price immediately prior to such issue or sale shall be reduced to a price determined by dividing:

(1) an amount equal to the sum of (a) the number of shares of Common Stock outstanding immediately prior to such issue or sale multiplied by the then existing Exercise Price, plus (b) the consideration, if any, received by the Company upon such issue or sale, by

(2) the total number of shares of Common Stock outstanding immediately after such issue or sale.

(ii) The provisions of Section 3(c)(i) shall not apply to any deemed issuance of Additional Shares for which an adjustment is provided under Section 3(a) or 3(b). No adjustment of the number of shares of Common Stock acquirable upon exercise of this Warrant shall be made under Section 3(c) upon the issuance of any shares of Common Stock which are issued pursuant to the exercise of any warrants or other subscription or purchase rights or pursuant to the exercise of any conversion or exchange rights in any convertible securities, if any such adjustment shall previously have been made upon the issuance of such warrants or other rights or upon the issuance of such convertible securities (or upon the issuance of any warrant or other rights therefor) pursuant to Section 3(d).

For purposes of this Warrant the term "EXCLUDED SHARES" means: (i) shares of Common Stock issuable or issued after the Closing Date to officers, employees, consultants or directors of the Company directly or pursuant to a stock purchase, stock option, restricted stock or other written compensation plan or agreement approved by the Board of Directors of the Company (the "BOARD"); (ii) shares of Common Stock issued or issuable after the Closing Date, primarily for non-equity financing purposes and as approved by the Board, to financial institutions or lessors in connection with commercial credit arrangements, equipment financings or similar transactions or to vendors of goods or services or customers; (iii) shares of Common Stock issuable upon (a) exercise of warrants, options, notes or other rights to acquire securities of the Company, in each case, outstanding on the issuance date of this Warrant (the "WARRANT DATE"), (b) conversion of shares of the Company's Preferred Stock, par value \$0.01 per share, outstanding on the Warrant Date, (c) exchange of promissory notes issued by the Company outstanding on the Warrant Date, (iv) the Shares (as such term is defined Common Stock and Warrant Purchase Agreement, dated as of the Warrant Date, among the Company and the persons and entities listed on Schedule 1 thereto (the "PURCHASE AGREEMENT")); (v) the Warrants (as such term is defined in the Purchase Agreement); (vi) capital stock or warrants or options to purchase capital stock issued in connection with bona fide acquisitions, mergers or similar transactions, the terms of which are approved by the Board;

shares of Common Stock issued or issuable to licensors of technology of the Company to pay expenses, royalties or milestone payments for which the Company is obligated under any licensing or related agreement; (viii) shares of Common Stock issuable or issued pursuant to stock splits, stock dividends and the like, or (ix) shares of Common Stock issued or issuable by way of dividend or other distribution on Excluded Shares.

(d) Issuance of Common Stock Equivalents.

(i) If at any time while this Warrant is outstanding the Company shall issue or sell any warrants or other rights to subscribe for or purchase any additional shares of Common Stock or any securities convertible into shares of Common Stock (other than the Additional Shares) (collectively, "COMMON STOCK EQUIVALENTS"), whether or not the rights to exchange or convert thereunder are immediately exercisable, and the effective price per share for which Common Stock is issuable upon the exercise, exchange or conversion of such Common Stock Equivalents shall be less than the Exercise Price in effect immediately prior to the time of such issue or sale, then the Exercise Price shall be adjusted as provided in Section 3(c) on the basis that the maximum number of additional shares of Common Stock issuable pursuant to all such Common Stock Equivalents shall be deemed to have been issued and outstanding and the Company shall have received all of the consideration payable therefor, if any, as of the date of the actual issuance of such Common Stock Equivalents. No further adjustments to the current Warrant Price shall be made under this Section 3(d) upon the actual issue of such Common Stock upon the exercise, conversion or exchange of such Common Stock Equivalents.

(ii) Upon the expiration or termination of any such Common Stock Equivalents, the Exercise Price, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect the issuance of the total number of shares of Common Stock (and convertible or exchangeable securities which remain in effect) actually issued upon the exercise, exchange or conversion of such Common Stock Equivalents to the extent that this Warrant is then outstanding.

(e) Other Action Affecting Common Stock. In case at any time or from time to time the Company shall take any action in respect of its Common Stock, other than the payment of dividends permitted by Section 3 or any other action described in Section 3, then, unless such action will not have a materially adverse effect upon the rights of the Holder, the number of shares of Common Stock or other stock into which this Warrant is exercisable and/or the purchase price thereof shall be adjusted in such manner as may be equitable in the circumstances.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Exercise Price, the Company, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to the Holder of this Warrant a certificate setting forth such adjustment or readjustment and

showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, upon the written request at any time of the Holder of this Warrant, furnish or cause to be furnished to such Holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Exercise Price at the time in effect and (iii) the number of shares of Common Stock and the amount, if any, or other property which at the time would be received upon the exercise of Warrants owned by such Holder.

(g) Notice of Corporate Action. If at any time:

(i) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend (other than a cash dividend payable out of earnings or earned surplus legally available for the payment of dividends under the laws of the jurisdiction of incorporation of the Company) or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(ii) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation, or

(iii) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to the Holder (i) at least 10-days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10-days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to the Holder at the last address of the Holder appearing on the books of the Company and delivered in accordance with Section 11(d).

(h) Adjustment if Registration Statement Not Effective. If a Registration Statement (as defined in the Registration Rights Agreement, dated as of the Warrant Date, among the Company and the persons and entities listed on Schedule 1 thereto (the "REGISTRATION RIGHTS

AGREEMENT")) is not effective with respect to all the Registrable Securities (as defined in the Registration Rights Agreement), other than Registrable Securities held by holders (i) which have not complied with the Registration Rights Agreement, including, without limitation, Section 4 thereof, or (ii) have otherwise not permitted the Company to include such Registrable Securities on the Registration Statement, on or prior to November 12, 2004, then the Exercise Price shall be adjusted to equal \$1.50 (subject to adjustment for stock splits, reverse splits, stock dividends and the like, and subject to adjustment in proportion to any adjustment pursuant to Section 3(c)).

4. TRANSFER OF WARRANT. This Warrant may only be transferred in compliance with federal and state securities laws; provided, however, that the Company may withhold its consent to transfer or assignment of this Warrant to any person or entity who is deemed to be a competitor or prospective competitor of the Company, such determination to be made in the reasonable judgment of the Board. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant or the resale of the Warrant Stock, this Warrant or the Warrant Stock, as applicable, shall not be registered under the Securities Act, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant or the Warrant Stock as the case may be, furnish to the Company a written opinion of counsel that is reasonably acceptable to the Company to the effect that such transfer may be made without registration under the Securities Act, (ii) that the Holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and substantially in the form attached as Exhibit B hereto and (iii) that the transferee be an "accredited investor" as defined in Rule 501(a) promulgated under the Securities Act. Transfer of this Warrant and all rights hereunder, in whole or in part, in accordance with the foregoing provisions, shall be registered on the books of the Company to be maintained for such purpose, upon surrender of this Warrant at the principal office of the Company or the office or agency designated by the Company, together with a written assignment of this Warrant substantially in the form of Exhibit C hereto duly executed by the Holder or its attorney-in-fact and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Following a transfer that complies with the requirements of this Section 4, the Warrant may be exercised by a new Holder for the purchase of shares of Common Stock regardless of whether the Company issued or registered a new Warrant on the books of the Company. This Section 4 shall survive the exercise or expiration of the Warrant.

5. CONDITIONS TO EXERCISE OF WARRANT.

(a) Each certificate evidencing the Warrant Shares issued upon exercise of this Warrant shall be stamped or imprinted with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED
UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT
BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR
HYPOTHECATED UNLESS AND UNTIL REGISTERED

UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

(b) REMOVAL OF LEGEND AND TRANSFER RESTRICTIONS. Any legend endorsed on a certificate pursuant to this Section 5 shall be removed, and the Company shall issue a certificate without such legend to the holder of such Warrant Shares if (i) such Warrant Shares are resold pursuant to a registration statement under the Securities Act of 1933, as amended, and a prospectus meeting the requirements of Section 10 of the Securities Act is delivered or deemed delivered to the purchaser of such Warrant Shares, (ii) if such holder satisfies the requirements of Rule 144(k) or (iii) if such holder provides the Company with an opinion of counsel for such holder of the Warrant Shares, reasonably satisfactory to the Company, to the effect that a sale, transfer or assignment of such Warrant Shares may be made without registration. This paragraph shall survive any exercise of this Warrant.

(c) RESTRICTIONS ON EXERCISE AMOUNT. Unless a Holder delivers to the Company irrevocable written notice (x) prior to the date of issuance hereof or 61 days prior to the effective date of such notice that this Section 5(c) shall not apply to such Holder or (y) prior to a Change of Control, the Holder may not acquire a number of Warrant Shares to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by such Holder and its affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "EXCHANGE ACT"), (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) exceeds 9.99% of the total number of shares of Common Stock of the Company then issued and outstanding. For purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and applicable regulations of the Securities Exchange Commission (the "COMMISSION"), and the percentage held by the holder shall be determined in a manner consistent with the provisions of Section 13(d) of the Exchange Act. Each delivery of a notice of exercise by a Holder will constitute a representation by such Holder that it has evaluated the limitation set forth in this paragraph and determined, based on the most recent public filings by the Company with the Commission, that the issuance of the full number of Warrant Shares requested in such notice of exercise is permitted under this paragraph.

6. FRACTIONAL SHARES. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

7. REGISTRATION RIGHTS. The Holder shall have the registration rights described in the Registration Rights Agreement.

8. RIGHTS OF STOCKHOLDERS. No Holder shall be entitled, as a Warrant holder, to vote or receive dividends or be deemed the holder of Warrant Shares or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall

anything contained herein be construed to confer upon the Holder any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance, or otherwise) or to receive dividends or subscription rights or otherwise with respect to the Warrant Shares until this Warrant shall have been exercised and the Warrant Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

9. TERM OF WARRANT. This Warrant shall become exercisable on the Warrant Date and shall no longer be exercisable as of the earlier of (i) 5:00 p.m., San Diego, California local time, on the date that is the five-year anniversary of the Warrant Date; and (ii) upon consummation of a Change of Control.

10. REDEMPTION AT COMPANY'S ELECTION. The Company may at the option of the Board, by at least seven-days' prior written notice to the Holder (the "REDEMPTION NOTICE"), redeem this Warrant, in whole or in part, at any time after June 30, 2004, provided that (i) the Daily Market Price for twenty consecutive trading days is equal to or greater than the product of (x) 2 multiplied by (y) the Exercise Price, (ii) either (A) all of the Warrant Shares underlying this Warrant to be redeemed are then registered under an effective registration statement or (B) may be sold pursuant to Rule 144 during a three-month period without registration under the Securities Act, (iii) sufficient shares of Common Stock of the Company are authorized and reserved for issuance upon the full exercise of this Warrant, (iv) all of the Warrant Shares issuable upon exercise of this Warrant are then listed on every stock exchange, market or bulletin board on which any Common Stock of the Company is then listed and (v) the Company is not in default of any material provision of any Transaction Agreement (as defined in the Purchase Agreement). The Redemption Notice shall set forth a date, not less than seven days after the date of the Redemption Notice, on which the redemption of this Warrant shall occur (the "REDEMPTION DATE"). On the Redemption Date, (i) the Company shall pay the Holder by certified check an amount equal to the product of (x) \$0.01 (as adjusted in proportion to any adjustment to the Exercise Price pursuant to Section 3 hereof) multiplied by (y) the number of Warrant Shares so redeemed; and (ii) the Holder shall deliver the original copy of this Warrant marked "REDEEMED" to the Company. If the Company shall redeem this Warrant in part, the Company shall, at the Redemption Date, provided that the Holder shall have delivered the original copy of this Warrant marked "REDEEMED" to the Company, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unredeemed shares of Common Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. Nothing in this Section 10 shall prevent the exercise of the Warrants at any time prior to the Redemption Date.

11. MISCELLANEOUS.

(a) This Warrant is being delivered in the State of California and shall be construed and enforced in accordance with and governed by the laws of the State of California, without giving effect to principles of conflicts of laws.

(b) The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

(c) The terms of this Warrant shall be binding upon and shall inure to the benefit of any successors or assigns of the Company and of the Holder and of the Warrant Shares issued or issuable upon the exercise hereof.

(d) Any notice provided for or permitted under this Warrant shall be treated as having been given (a) upon receipt, when delivered personally or sent by confirmed facsimile or telecopy, (b) one day after sending, when sent by commercial overnight courier with written verification of receipt, or (c) three business days after deposit with the United States Postal Service, when mailed postage prepaid by certified or registered mail, return receipt requested, addressed (a) if to the Company, at 9948 Hibert Street, Suite 100, San Diego, CA 92131, facsimile: (858) 271-9678, Attention: Nicholas J. Virca, or, if to the Holder, at such address or facsimile number as the Holder shall have furnished to the Company in writing, or at such other place of which the other party has been notified in accordance with the provisions of this Section 11(d).

(e) This Warrant constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof.

(f) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at the Holder's expense will execute and deliver to the holder of record, in lieu thereof, a new Warrant of like date and tenor.

(g) This Warrant and any provision hereof may be amended, waived or terminated only by an instrument in writing signed by the Company and the Holder.

(h) Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to the foregoing terms and conditions.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer.

Issued: April 8, 2004

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Nicholas J. Virca
President & CEO

SIGNATURE PAGE TO THE A-1 WARRANT TO PURCHASE COMMON STOCK

EXHIBIT A

NOTICE OF EXERCISE

TO: Adventrx Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131

1. The undersigned hereby elects to purchase _____ shares of Common Stock, par value \$0.001 per share, of the Company ("COMMON STOCK") pursuant to the terms of Section 1(b) of the A-1 Warrant to Purchase Common Stock dated _____ 2004 (the "WARRANT"), and tenders herewith payment of the purchase price of such shares in full.

2. The undersigned hereby elects to convert the attached Warrant into Common Stock of Adventrx Pharmaceuticals, Inc. through "cashless exercise" in the manner specified in the Warrant. This conversion is exercised with respect to _____ of the Shares covered by the Warrant.

Please issue a certificate or certificates representing said _____ shares of Common Stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

The undersigned hereby represents and warrants that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale, in connection with the distribution thereof, and that the undersigned has no present intention of distributing or reselling such shares, and that all representations and warranties of the undersigned with respect to the Warrant and Warrant Shares (as defined in the Warrant) set forth in Section 4 of the Purchase Agreement (as defined in the Warrant) were true and correct as of the Warrant Date (as defined in the Warrant) and are true and correct as of the date hereof.

- - - - -

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT B

FORM OF INVESTMENT REPRESENTATION LETTER

In connection with the acquisition of [warrants (the "Warrants") to purchase _____ shares of Common Stock of Adventrx Pharmaceuticals, Inc. (the "Company"), par value \$0.001 per share (the "Common Stock")][_____ shares of Common Stock of Adventrx Pharmaceuticals, Inc. (the "Company"), par value \$0.001 per share (the "Common Stock")], by _____ (the "Holder") from _____, the Holder hereby represents and warrants to the Company as follows:

The Holder (i) is an "Accredited Investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Act"); and (ii) has the ability to bear the economic risks of such Holder's prospective investment, including a complete loss of Holder's investment in the Warrants and the shares of Common Stock issuable upon the exercise thereof (collectively, the "Securities").

The Holder, by acceptance of the Warrants, represents and warrants to the Company that the Warrants and all securities acquired upon any and all exercises of the Warrants are purchased for the Holder's own account, and not with view to distribution of either the Warrants or any securities purchasable upon exercise thereof in violation of applicable securities laws.

The Holder acknowledges that (i) the Securities have not been registered under the Act, (ii) the Securities are "restricted securities" and the certificate(s) representing the Securities shall bear the following legend, or a similar legend to the same effect, until (i) in the case of the shares of Common Stock underlying the Warrants, such shares shall have been registered for resale by the Holder under the Act and effectively been disposed of in accordance with a registration statement that has been declared effective; or (ii) in the opinion of counsel for the Company such Securities may be sold without registration under the Act:

"[NEITHER] THE SECURITIES REPRESENTED BY THIS CERTIFICATE [NOR THE SECURITIES INTO WHICH THEY ARE EXERCISABLE] HAVE [NOT] BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), AND ALL SUCH SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AS SET FORTH IN THIS CERTIFICATE. [NEITHER] THE SECURITIES REPRESENTED HEREBY [NOR THE SECURITIES INTO WHICH THEY ARE EXERCISABLE] MAY [NOT] BE SOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT OR AN OPINION OF COUNSEL, REASONABLY ACCEPTABLE TO COUNSEL FOR THE COMPANY, TO THE EFFECT THAT THE PROPOSED SALE, TRANSFER, OR DISPOSITION MAY BE EFFECTUATED WITHOUT REGISTRATION UNDER THE ACT."

IN WITNESS WHEREOF, the Holder has caused this Investment Representation Letter to be executed in its corporate name by its duly authorized officer this ___ day of _____ 200_.

[Name]

By: _____
Name:
Title:

EXHIBIT C

ASSIGNMENT FORM

FOR VALUE RECEIVED the undersigned registered owner of this Warrant for the purchase of shares of Common Stock of Adventrx Pharmaceuticals, Inc. hereby sells, assigns and transfers unto the Assignee named below all of the rights of the undersigned under this Warrant, with respect to the number of shares of common stock set forth below:

- -----
- -----
- -----
(Name and Address of Assignee)
- -----
(Number of Shares of Common Stock)

and does hereby irrevocably constitute and appoint _____ attorney-in-fact to register such transfer on the books of the Company, maintained for the purpose, with full power of substitution in the premises.

Dated: _____

- -----
(Print Name and Title)
- -----
(Signature)
- -----
(Witness)

NOTICE: The signature on this assignment must correspond with the name as written upon the face of the Warrant in every particular, without alteration or enlargement or any change whatsoever.

SCHEDULE OF WARRANTHOLDERS

ADVENTRX Pharmaceuticals, Inc. issued this form of A-1 Warrant to Purchase Common Stock to each of the persons for the purchase of up to the number of shares of Common Stock listed opposite such person's name below.

HOLDER	WARRANT NO.	SHARES
Alpha Capital AG	WA1-1	99,999
Anasazi Partners III LLC	WA1-2	34,999
Anasazi Partners III Offshore Fund Ltd.	WA1-3	34,999
Andrew J. Maffey	WA1-4	5,100
Bank Sal. Oppenheim jr. & Cie (Switzerland) Limited	WA1-5	1,500
BayStar Capital II, L.P.	WA1-6	60,000
Bristol Investment Fund, Ltd.	WA1-7	79,999
BSI New BioMedical Frontier (SICAV)	WA1-8	30,000
BSI SA	WA1-9	29,850
Capital Ventures International	WA1-10	199,999
Castle Creek Healthcare Partners LLC	WA1-11	100,000
Centrum Bank AG	WA1-57	9,000
Christopher P. Baker	WA1-12	30,000
Clariden Investments Ltd.	WA1-13	8,100
Crescent International Ltd	WA1-14	54,000
Crestview Capital Master, LLC	WA1-15	199,999
E Todd Tracy	WA1-16	30,000
Enable Growth Partners	WA1-17	60,000
Gamma Opportunity Capital Partners, LP	WA1-18	79,999
Gene Salkind, MD	WA1-19	18,000
Greenwich Growth Fund Limited	WA1-20	19,999
James Ladner	WA1-21	6,000
JIBS Equities	WA1-22	39,999
Kenneth Greif	WA1-23	99,999
Laddcap Value Partners LP	WA1-24	30,000
LB (Swiss) Privatbank AG	WA1-25	7,500
Lilienthal Investment Foundation	WA1-26	10,200
Longview Fund, LP	WA1-27	49,999
Michael Loew	WA1-28	9,999
North Sound Legacy Fund LLC	WA1-29	3,600
North Sound Legacy Institutional Fund LLC	WA1-30	39,600
North Sound Legacy International Ltd	WA1-31	76,800
OTAPE Investments LLC	WA1-32	19,999
Paul Scharfer	WA1-33	40,500
Peter Levitch	WA1-34	15,000
Platinum Long Term Growth	WA1-35	19,999
ProMed Offshore Fund, Ltd.	WA1-36	21,900
ProMed Partners II, L.P.	WA1-37	29,340
ProMed Partners, L.P.	WA1-38	135,300
RHP Master Fund, Ltd.	WA1-39	60,000
Richard Reiss	WA1-40	7,500

Ritchie Long/Short Trading Ltd.	WA1-41	150,000
Robert J. and Sandra S. Neborsky JTWR0S	WA1-42	6,000
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	WA1-43	78,000
Robert Wexler	WA1-44	3,000

Roland Hartman	WA1-58	7,500
Saad Investments Company Limited	WA1-45	45,000
Schroder & Co Bank AG	WA1-59	135,000
SDS Capital Group SPC, Ltd.	WA1-46	199,999
Sean M. Quinn	WA1-47	21,000
SF Capital Partners Ltd.	WA1-48	150,000
Stonestreet LP	WA1-49	69,999
Sunrise Overseas, Ltd.	WA1-50	49,800
TCMP3 Partners	WA1-51	30,000
Wayne Saker	WA1-52	12,000
Whalehaven Fund Limited	WA1-53	24,999
William B. Newman	WA1-54	10,200
Xmark Fund, L.P.	WA1-55	49,500
Xmark Fund, LTD	WA1-56	49,500

THIS WARRANT HAS BEEN, AND THE SHARES OF COMMON STOCK WHICH MAY BE RECEIVED PURSUANT TO THE EXERCISE OF THIS WARRANT WILL BE, ACQUIRED SOLELY FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF. NEITHER THIS WARRANT NOR SUCH SHARES (TOGETHER, THE "SECURITIES") HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH DISPOSITION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT AND OF ANY APPLICABLE STATE SECURITIES LAWS.

NO. WA2-

ISSUED: APRIL 8, 2004

A-2 WARRANT TO PURCHASE COMMON STOCK

THIS CERTIFIES THAT, for good and valuable consideration, [see attached schedule] (the "HOLDER") is entitled to purchase from Adventrx Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), [20% Coverage] [see attached schedule] fully paid and nonassessable shares of Common Stock, par value \$0.001 per share ("COMMON STOCK"), of the Company (as adjusted pursuant to Section 3 hereof) (the "WARRANT SHARES") at a price per share equal to Two Dollars and Fifty Cents (\$2.50) (as adjusted pursuant to Section 3 hereof) (the "EXERCISE PRICE"), subject to the provisions and upon the terms and conditions hereinafter set forth.

1. METHOD OF EXERCISE; PAYMENT.

(a) Exercise Period. The purchase right represented by this Warrant may be exercised in whole or part by the Holder during the term of this Warrant (as set forth in Section 9 hereof) at any time after the Commencement Date, as defined below, by the surrender of this Warrant (with the notice of exercise form attached hereto as Exhibit A (the "NOTICE OF EXERCISE") duly executed) at the principal office of the Company. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Common Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant, or at the request of the Holder, appropriate notation may be made on this Warrant and the same returned to the Holder.

(b) Exercise. Upon exercise of this Warrant, the Holder shall pay the Company an amount equal to the product of (x) the Exercise Price multiplied by (y) the total number of Warrant Shares purchased pursuant to this Warrant, by wire transfer or certified check payable to the order of the Company or, at any time following the first anniversary of the Warrant Date, if there is not an effective Registration Statement (as defined in the Registration Rights

Agreement, dated as of the Warrant Date, among the Company and the persons and entities listed on Schedule 1 thereto (the "REGISTRATION RIGHTS AGREEMENT") with respect to all of the Warrant Shares, then at the option of the Holder, such amount may be paid by the surrender of a portion of shares of Common Stock then held by the Holder or issuable upon such exercise of this Warrant, which shall be valued and credited toward such amount due to the Company for the exercise of the Warrant based upon the Current Market Price of the Common Stock. The person or persons in whose name(s) any certificate(s) representing the Warrant Shares shall be issuable upon exercise of this Warrant shall be deemed to have become the holder(s) of record of, and shall be treated for all purposes as the record holder(s) of, the Warrant Shares represented thereby (and such Warrant Shares shall be deemed to have been issued) immediately prior to the close of business on the date upon which this Warrant is exercised.

"CURRENT MARKET PRICE" means, in respect of any share of Common Stock on any date herein specified,

(1) if there shall not then be a public market for the Common Stock, the higher of

(a) the book value per share of Common Stock at such date, and

(b) the value per share of Common Stock at such date as determined in good faith by the Board,

or

(2) if there shall then be a public market for the Common Stock, the higher of (x) the book value per share of Common Stock at such date, and (y) the average of the daily market prices for the 10 consecutive trading days immediately before such date. The daily market price (the "DAILY MARKET PRICE") for each such trading day shall be (i) the closing price on such day on the principal stock exchange (including Nasdaq) on which such Common Stock is then listed or admitted to trading, or quoted, as applicable, (ii) if no sale takes place on such day on any such exchange, the last reported closing price on such day as officially quoted on any such exchange (including Nasdaq), (iii) if the Common Stock is not then listed or admitted to trading on any stock exchange, the last reported closing bid price on such day in the over-the-counter market, as furnished by the National Association of Securities Dealers Automatic Quotation System or the National Quotation Bureau, Inc., (iv) if neither such corporation at the time is engaged in the business of reporting such prices, as furnished by any similar firm then engaged in such business, or (v) if there is

no such firm, as furnished by any member of the National Association of Securities Dealers, Inc. (the "NASD") selected mutually by the holder of this Warrant and the Company or, if they cannot agree upon such selection, as selected by two such members of the NASD, one of which shall be selected by holder of this Warrant and one of which shall be selected by the Company.

(c) Stock Certificates. In the event of the exercise of this Warrant, certificates for the Warrant Shares so purchased shall be delivered to the Holder within a reasonable time after exercise, but in no case later than the date that is three business days following receipt by the Company of a Notice of Exercise duly completed and executed.

2. STOCK FULLY PAID; RESERVATION OF SHARES. All of the Warrant Shares issuable upon the exercise of the rights represented by this Warrant will, upon issuance and receipt of the Exercise Price therefor, be fully paid and nonassessable, and free from all preemptive rights, rights of first refusal or first offer, taxes, liens and charges with respect to the issuance thereof. During the period within which the rights represented by this Warrant may be exercised, the Company shall at all times have authorized and reserved for issuance a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant.

3. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF SHARES. The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price therefor shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification, Consolidation or Reorganization. In case of any reclassification of the Common Stock (other than a change in par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation (other than a Change of Control, as defined below) (any of which is a "REORGANIZATION TRANSACTION"), the Company, or such successor corporation as the case may be, shall execute a new warrant, providing that the Holder shall have the right to exercise such new warrant, and procure upon such exercise and payment of the same aggregate Exercise Price, in lieu of the Warrant Shares theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other securities, money and property as would be payable for the Warrant Shares issuable upon exercise of this Warrant as if such Warrant Shares were outstanding on the consummation of the Reorganization Transaction. For purposes of this Warrant, the term "CHANGE OF CONTROL" shall mean (i) any acquisition of the Company by means of merger, acquisition, or other form of corporate reorganization in which outstanding shares of the Company are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary or parent (other than a reincorporation transaction or change of domicile) and pursuant to which the holders of the outstanding voting securities of the Company immediately prior to such consolidation, merger or other transaction fail to hold equity securities representing a majority of the voting power of the Company or surviving entity immediately following such consolidation, merger or other transaction (excluding voting securities of the acquiring corporation held by such holders prior to such transaction) or (ii) a sale of all or substantially all of the assets of the Company.

(b) Stock Splits, Dividends and Combinations. In the event that the Company shall at any time subdivide the outstanding shares of Common Stock, or shall issue a stock dividend on its outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such subdivision or to the issuance of such stock dividend shall be proportionately increased, and the Exercise Price shall be proportionately decreased, and in the event that the Company shall at any time combine the

outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such combination shall be proportionately decreased, and the Exercise Price shall be proportionately increased, effective at the close of business on the date of such subdivision, stock dividend or combination, as the case may be.

(c) Issuance of Additional Shares.

(i) If at any time while this Warrant is outstanding and after June 30, 2004, the Company shall issue or sell any shares of its Common Stock, other than Excluded Shares (as that term is defined below) ("ADDITIONAL SHARES"), in exchange for consideration in an amount per Additional Share less than the Exercise Price at the time the Additional Shares are issued or sold, then the Exercise Price immediately prior to such issue or sale shall be reduced to a price determined by dividing:

(1) an amount equal to the sum of (a) the number of shares of Common Stock outstanding immediately prior to such issue or sale multiplied by the then existing Exercise Price, plus (b) the consideration, if any, received by the Company upon such issue or sale, by

(2) the total number of shares of Common Stock outstanding immediately after such issue or sale.

(ii) The provisions of Section 3(c)(i) shall not apply to any deemed issuance of Additional Shares for which an adjustment is provided under Section 3(a) or 3(b). No adjustment of the number of shares of Common Stock acquirable upon exercise of this Warrant shall be made under Section 3(c) upon the issuance of any shares of Common Stock which are issued pursuant to the exercise of any warrants or other subscription or purchase rights or pursuant to the exercise of any conversion or exchange rights in any convertible securities, if any such adjustment shall previously have been made upon the issuance of such warrants or other rights or upon the issuance of such convertible securities (or upon the issuance of any warrant or other rights therefor) pursuant to Section 3(d).

For purposes of this Warrant the term "EXCLUDED SHARES" means: (i) shares of Common Stock issuable or issued after the Closing Date to officers, employees, consultants or directors of the Company directly or pursuant to a stock purchase, stock option, restricted stock or other written compensation plan or agreement approved by the Board of Directors of the Company (the "BOARD"); (ii) shares of Common Stock issued or issuable after the Closing Date, primarily for non-equity financing purposes and as approved by the Board, to financial institutions or lessors in connection with commercial credit arrangements, equipment financings or similar transactions or to vendors of goods or services or customers; (iii) shares of Common Stock issuable upon (a) exercise of warrants, options, notes or other rights to acquire securities of the Company, in each case, outstanding on the issuance date of this Warrant (the "WARRANT DATE"), (b) conversion of shares of the Company's Preferred Stock, par value \$0.01 per share, outstanding on the Warrant Date, (c) exchange of promissory notes issued by the Company outstanding on the Warrant Date, (iv) the Shares (as such term is defined in the Common Stock and Warrant Purchase Agreement, dated as of the Warrant Date, among the Company and the persons and entities listed on

Schedule 1 thereto (the "PURCHASE AGREEMENT")); (v) the Warrants (as such term is defined in the Purchase Agreement); (vi) capital stock or warrants or options to purchase capital stock issued in connection with bona fide acquisitions, mergers or similar transactions, the terms of which are approved by the Board; (vii) shares of Common Stock issued or issuable to licensors of technology of the Company to pay expenses, royalties or milestone payments for which the Company is obligated under any licensing or related agreement; (viii) shares of Common Stock issuable or issued pursuant to stock splits, stock dividends and the like, or (ix) shares of Common Stock issued or issuable by way of dividend or other distribution on Excluded Shares.

(d) Issuance of Common Stock Equivalents.

(i) If at any time while this Warrant is outstanding the Company shall issue or sell any warrants or other rights to subscribe for or purchase any additional shares of Common Stock or any securities convertible into shares of Common Stock (other than the Additional Shares) (collectively, "COMMON STOCK EQUIVALENTS"), whether or not the rights to exchange or convert thereunder are immediately exercisable, and the effective price per share for which Common Stock is issuable upon the exercise, exchange or conversion of such Common Stock Equivalents shall be less than the Exercise Price in effect immediately prior to the time of such issue or sale, then the Exercise Price shall be adjusted as provided in Section 3(c) on the basis that the maximum number of additional shares of Common Stock issuable pursuant to all such Common Stock Equivalents shall be deemed to have been issued and outstanding and the Company shall have received all of the consideration payable therefor, if any, as of the date of the actual issuance of such Common Stock Equivalents. No further adjustments to the current Warrant Price shall be made under this Section 3(d) upon the actual issue of such Common Stock upon the exercise, conversion or exchange of such Common Stock Equivalents.

(ii) Upon the expiration or termination of any such Common Stock Equivalents, the Exercise Price, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect the issuance of the total number of shares of Common Stock (and convertible or exchangeable securities which remain in effect) actually issued upon the exercise, exchange or conversion of such Common Stock Equivalents to the extent that this Warrant is then outstanding.

(e) Other Action Affecting Common Stock. In case at any time or from time to time the Company shall take any action in respect of its Common Stock, other than the payment of dividends permitted by Section 3 or any other action described in Section 3, then, unless such action will not have a materially adverse effect upon the rights of the Holder, the number of shares of Common Stock or other stock into which this Warrant is exercisable and/or the purchase price thereof shall be adjusted in such manner as may be equitable in the circumstances.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Exercise Price, the Company, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to the Holder of this Warrant a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, upon the written request at any time of the Holder of this Warrant, furnish or cause to be furnished to such Holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Exercise Price at the time in effect and (iii) the number of shares of Common Stock and the amount, if any, or other property which at the time would be received upon the exercise of Warrants owned by such Holder.

(g) Notice of Corporate Action. If at any time:

(i) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend (other than a cash dividend payable out of earnings or earned surplus legally available for the payment of dividends under the laws of the jurisdiction of incorporation of the Company) or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(ii) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation, or

(iii) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to the Holder (i) at least 10-days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10-days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to the Holder at the last address of the Holder appearing on the books of the Company and delivered in accordance with Section 11(d).

4. TRANSFER OF WARRANT. This Warrant may only be transferred in compliance with federal and state securities laws; provided, however, that the Company may withhold its consent to transfer or assignment of this Warrant to any person or entity who is deemed to be a competitor or prospective competitor of the Company, such determination to be made in the reasonable judgment of the Board. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant or the resale of the Warrant Stock, this Warrant or the Warrant Stock, as applicable, shall not be registered under the Securities Act, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant or the Warrant Stock as the case may be, furnish to the Company a written opinion of counsel that is reasonably acceptable to the Company to the effect that such transfer may be made without registration under the Securities Act, (ii) that the Holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and substantially in the form attached as Exhibit B hereto and (iii) that the transferee be an "accredited investor" as defined in Rule 501(a) promulgated under the Securities Act. Transfer of this Warrant and all rights hereunder, in whole or in part, in accordance with the foregoing provisions, shall be registered on the books of the Company to be maintained for such purpose, upon surrender of this Warrant at the principal office of the Company or the office or agency designated by the Company, together with a written assignment of this Warrant substantially in the form of Exhibit C hereto duly executed by the Holder or its attorney-in-fact and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Following a transfer that complies with the requirements of this Section 4, the Warrant may be exercised by a new Holder for the purchase of shares of Common Stock regardless of whether the Company issued or registered a new Warrant on the books of the Company. This Section 4 shall survive the exercise or expiration of the Warrant.

5. CONDITIONS TO EXERCISE OF WARRANT.

(a) Each certificate evidencing the Warrant Shares issued upon exercise of this Warrant shall be stamped or imprinted with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

(b) REMOVAL OF LEGEND AND TRANSFER RESTRICTIONS. Any legend endorsed on a certificate pursuant to this Section 5 shall be removed, and the Company shall issue a certificate without such legend to the holder of such Warrant Shares if (i) such Warrant Shares are resold pursuant to a registration statement under the Securities Act of 1933, as amended, and a prospectus meeting the requirements of Section 10 of the Securities Act is delivered or deemed delivered to the purchaser of such Warrant Shares, (ii) if such holder satisfies the requirements of Rule 144(k) or (iii) if such holder provides the Company with an opinion of counsel for such holder of the Warrant Shares, reasonably satisfactory to the Company, to the effect that a sale, transfer or assignment of such Warrant Shares may be made without registration. This paragraph shall survive any exercise of this Warrant.

(c) RESTRICTIONS ON EXERCISE AMOUNT. Unless a Holder delivers to the Company irrevocable written notice (x) prior to the date of issuance hereof or 61 days prior to the effective date of such notice that this Section 5(c) shall not apply to such Holder or (y) prior to a Change of Control, the Holder may not acquire a number of Warrant Shares to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by such Holder and its affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "EXCHANGE ACT"), (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) exceeds 9.99% of the total number of shares of Common Stock of the Company then issued and outstanding. For purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and applicable regulations of the Commission, and the percentage held by the holder shall be determined in a manner consistent with the provisions of Section 13(d) of the Exchange Act. Each delivery of a notice of exercise by a Holder will constitute a representation by such Holder that it has evaluated the limitation set forth in this paragraph and determined, based on the most recent public filings by the Company with the Commission, that the issuance of the full number of Warrant Shares requested in such notice of exercise is permitted under this paragraph.

6. FRACTIONAL SHARES. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

7. REGISTRATION RIGHTS. The Holder shall have the registration rights described in the Registration Rights Agreement.

8. RIGHTS OF STOCKHOLDERS. No Holder shall be entitled, as a Warrant holder, to vote or receive dividends or be deemed the holder of Warrant Shares or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance, or otherwise) or to receive dividends or subscription rights or

otherwise with respect to the Warrant Shares until this Warrant shall have been exercised and the Warrant Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

9. TERM OF WARRANT. This Warrant shall become exercisable on the Warrant Date and shall no longer be exercisable as of the earlier of (i) 5:00 p.m., San Diego, California local time, on the date that is the five-year anniversary of the Warrant Date; and (ii) upon consummation of a Change of Control.

10. REDEMPTION AT COMPANY'S ELECTION. The Company may at the option of the Board, by at least seven-days' prior written notice to the Holder (the "REDEMPTION NOTICE"), redeem this Warrant, in whole or in part, at any time, provided that (i) the Daily Market Price for twenty consecutive trading days is equal to or greater than the product of (x) 2 multiplied by (y) the Exercise Price, (ii) either (A) all of the Warrant Shares underlying this Warrant to be redeemed are then registered under an effective registration statement or (B) may be sold pursuant to Rule 144 during a three-month period without registration under the Securities Act, (iii) sufficient shares of Common Stock of the Company are authorized and reserved for issuance upon the full exercise of this Warrant, (iv) all of the Warrant Shares issuable upon exercise of this Warrant are then listed on every stock exchange, market or bulletin board on which any Common Stock of the Company is then listed and (v) the Company is not in default of any material provision of any Transaction Agreement (as defined in the Purchase Agreement). The Redemption Notice shall set forth a date, not less than seven days after the date of the Redemption Notice, on which the redemption of this Warrant shall occur (the "REDEMPTION DATE"). On the Redemption Date, (i) the Company shall pay the Holder by certified check an amount equal to the product of (x) \$0.001 (as adjusted in proportion to any adjustment to the Exercise Price pursuant to Section 3 hereof) multiplied by (y) the number of Warrant Shares so redeemed; and (ii) the Holder shall deliver the original copy of this Warrant marked "REDEEMED" to the Company. If the Company shall redeem this Warrant in part, the Company shall, at the Redemption Date, provided that the Holder shall have delivered the original copy of this Warrant marked "REDEEMED" to the Company, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unredeemed shares of Common Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. Nothing in this Section 10 shall prevent the exercise of the Warrants at any time prior to the Redemption Date.

11. MISCELLANEOUS.

(a) This Warrant is being delivered in the State of California and shall be construed and enforced in accordance with and governed by the laws of the State of California, without giving effect to principles of conflicts of laws.

(b) The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

(c) The terms of this Warrant shall be binding upon and shall inure to the benefit of any successors or assigns of the Company and of the Holder and of the Warrant Shares issued or issuable upon the exercise hereof.

(d) Any notice provided for or permitted under this Warrant shall be treated as having been given (a) upon receipt, when delivered personally or sent by confirmed facsimile or telecopy, (b) one day after sending, when sent by commercial overnight courier with written verification of receipt, or (c) three business days after deposit with the United States Postal Service, when mailed postage prepaid by certified or registered mail, return receipt requested, addressed (a) if to the Company, at 9948 Hibert Street, Suite 100, San Diego, CA 92131, facsimile: (858) 271-9678, Attention: Nicholas J. Virca, or, if to the Holder, at such address or facsimile number as the Holder shall have furnished to the Company in writing, or at such other place of which the other party has been notified in accordance with the provisions of this Section 11(d).

(e) This Warrant constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof.

(f) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at the Holder's expense will execute and deliver to the holder of record, in lieu thereof, a new Warrant of like date and tenor.

(g) This Warrant and any provision hereof may be amended, waived or terminated only by an instrument in writing signed by the Company and the Holder.

(h) Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to the foregoing terms and conditions.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer.

Issued: April 8, 2004

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Nicholas J. Virca
President & CEO

SIGNATURE PAGE TO THE A-2 WARRANT TO PURCHASE COMMON STOCK

EXHIBIT A
NOTICE OF EXERCISE

TO: Adventrx Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131

1. The undersigned hereby elects to purchase _____ shares of Common Stock, par value \$0.001 per share, of the Company ("COMMON STOCK") pursuant to the terms of Section 1(b) of the A-2 Warrant to Purchase Common Stock dated _____ 2004 (the "WARRANT"), and tenders herewith payment of the purchase price of such shares in full.

2. The undersigned hereby elects to convert the attached Warrant into Common Stock of Adventrx Pharmaceuticals, Inc. through "cashless exercise" in the manner specified in the Warrant. This conversion is exercised with respect to _____ of the Shares covered by the Warrant.

Please issue a certificate or certificates representing said _____ shares of Common Stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

The undersigned hereby represents and warrants that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale, in connection with the distribution thereof, and that the undersigned has no present intention of distributing or reselling such shares, and that all representations and warranties of the undersigned with respect to the Warrants and Warrant Shares (as defined in the Warrant) set forth in Section 4 of the Purchase Agreement (as defined in the Warrant) were true and correct as of the Warrant Date (as defined in the Warrant) and are true and correct as of the date hereof.

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT B

FORM OF INVESTMENT REPRESENTATION LETTER

In connection with the acquisition of [warrants (the "Warrants") to purchase _____ shares of Common Stock of Adventrx Pharmaceuticals, Inc. (the "Company"), par value \$0.001 per share (the "Common Stock")][_____ shares of Common Stock of Adventrx Pharmaceuticals, Inc. (the "Company"), par value \$0.001 per share (the "Common Stock")], by _____ (the "Holder") from _____, the Holder hereby represents and warrants to the Company as follows:

The Holder (i) is an "Accredited Investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Act"); and (ii) has the ability to bear the economic risks of such Holder's prospective investment, including a complete loss of Holder's investment in the Warrants and the shares of Common Stock issuable upon the exercise thereof (collectively, the "Securities").

The Holder, by acceptance of the Warrants, represents and warrants to the Company that the Warrants and all securities acquired upon any and all exercises of the Warrants are purchased for the Holder's own account, and not with view to distribution of either the Warrants or any securities purchasable upon exercise thereof in violation of applicable securities laws.

The Holder acknowledges that (i) the Securities have not been registered under the Act, (ii) the Securities are "restricted securities" and the certificate(s) representing the Securities shall bear the following legend, or a similar legend to the same effect, until (i) in the case of the shares of Common Stock underlying the Warrants, such shares shall have been registered for resale by the Holder under the Act and effectively been disposed of in accordance with a registration statement that has been declared effective; or (ii) in the opinion of counsel for the Company such Securities may be sold without registration under the Act:

"[NEITHER] THE SECURITIES REPRESENTED BY THIS CERTIFICATE [NOR THE SECURITIES INTO WHICH THEY ARE EXERCISABLE] HAVE [NOT] BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), AND ALL SUCH SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AS SET FORTH IN THIS CERTIFICATE. [NEITHER] THE SECURITIES REPRESENTED HEREBY [NOR THE SECURITIES INTO WHICH THEY ARE EXERCISABLE] MAY [NOT] BE SOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT OR AN OPINION OF COUNSEL, REASONABLY ACCEPTABLE TO COUNSEL FOR THE COMPANY, TO THE EFFECT THAT THE PROPOSED SALE, TRANSFER, OR DISPOSITION MAY BE EFFECTUATED WITHOUT REGISTRATION UNDER THE ACT."

IN WITNESS WHEREOF, the Holder has caused this Investment Representation Letter to be executed in its corporate name by its duly authorized officer this ___ day of _____ 200_.

[Name]

By: _____
Name:
Title:

EXHIBIT C

ASSIGNMENT FORM

FOR VALUE RECEIVED the undersigned registered owner of this Warrant for the purchase of shares of Common Stock of Adventrx Pharmaceuticals, Inc. hereby sells, assigns and transfers unto the Assignee named below all of the rights of the undersigned under this Warrant, with respect to the number of shares of common stock set forth below:

- -----
- -----
- -----
(Name and Address of Assignee)
- -----
(Number of Shares of Common Stock)

and does hereby irrevocably constitute and appoint _____ attorney-in-fact to register such transfer on the books of the Company, maintained for the purpose, with full power of substitution in the premises.

Dated: _____

- -----
(Print Name and Title)
- -----
(Signature)
- -----
(Witness)

NOTICE: The signature on this assignment must correspond with the name as written upon the face of the Warrant in every particular, without alteration or enlargement or any change whatsoever.

SCHEDULE OF WARRANTHOLDERS

ADVENTRX Pharmaceuticals, Inc. issued this form of A-2 Warrant to Purchase Common Stock to each of the persons for the purchase of up to the number of shares of Common Stock listed opposite such person's name below.

HOLDER	WARRANT NO.	SHARES
Alpha Capital AG	WA2-1	66,666
Anasazi Partners III LLC	WA2-2	23,333
Anasazi Partners III Offshore Fund Ltd.	WA2-3	23,333
Andrew J. Maffey	WA2-4	3,400
Bank Sal. Oppenheim jr. & Cie (Switzerland) Limited	WA2-5	1,000
BayStar Capital II, L.P.	WA2-6	40,000
Bristol Investment Fund, Ltd.	WA2-7	53,333
BSI New BioMedical Frontier (SICAV)	WA2-8	20,000
BSI SA	WA2-9	19,900
Capital Ventures International	WA2-10	133,333
Castle Creek Healthcare Partners LLC	WA2-11	66,666
CD Investment Partners, Ltd.	WA2-60	50,000
Centrum Bank AG	WA2-57	6,000
Christopher P. Baker	WA2-12	20,000
Clariden Investments Ltd.	WA2-13	5,400
Crescent International Ltd	WA2-14	36,000
Crestview Capital Master, LLC	WA2-15	133,333
E Todd Tracy	WA2-16	20,000
Enable Growth Partners	WA2-17	40,000
Gamma Opportunity Capital Partners, LP	WA2-18	53,333
Gene Salkind, MD	WA2-19	12,000
Greenwich Growth Fund Limited	WA2-20	13,333
James Ladner	WA2-21	4,000
JIBS Equities	WA2-22	26,666
Kenneth Greif	WA2-23	66,666
Laddcap Value Partners LP	WA2-24	20,000
LB (Swiss) Privatbank AG	WA2-25	5,000
Lilienthal Investment Foundation	WA2-26	6,800
Longview Fund, LP	WA2-27	33,333
Michael Loew	WA2-28	6,666
North Sound Legacy Fund LLC	WA2-29	2,400
North Sound Legacy Institutional Fund LLC	WA2-30	26,400
North Sound Legacy International Ltd	WA2-31	51,200
OTAPE Investments LLC	WA2-32	13,333
Paul Scharfer	WA2-33	27,000

Peter Levitch	WA2-34	10,000
Platinum Long Term Growth	WA2-35	13,333
ProMed Offshore Fund, Ltd.	WA2-36	14,600
ProMed Partners II, L.P.	WA2-37	19,560
ProMed Partners, L.P.	WA2-38	90,200
RHP Master Fund, Ltd.	WA2-39	40,000
Richard Reiss	WA2-40	5,000
Ritchie Long/Short Trading Ltd.	WA2-41	100,000
Robert J. and Sandra S. Neborsky JTWROS	WA2-42	4,000
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	WA2-43	52,000
Robert Wexler	WA2-44	2,000
Roland Hartman	WA2-58	5,000
Saad Investments Company Limited	WA2-45	30,000
Schroder & Co Bank AG	WA2-59	90,000
SDS Capital Group SPC, Ltd.	WA2-46	133,333
Sean M. Quinn	WA2-47	14,000
SF Capital Partners Ltd.	WA2-48	100,000
Stonestreet LP	WA2-49	46,666
Sunrise Overseas, Ltd.	WA2-50	33,200
TCMP3 Partners	WA2-51	20,000
Wayne Saker	WA2-52	8,000
Whalehaven Fund Limited	WA2-53	16,666
William B. Newman	WA2-54	6,800
Xmark Fund, L.P.	WA2-55	33,000
Xmark Fund, LTD	WA2-56	33,000

This Registration Rights Agreement (this "Agreement"), dated as of April 5, 2004 (the "Agreement Date"), is among ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), each of the persons and entities listed on Schedule 1 hereto (each, an "Investor").

BACKGROUND

A. The Company and the Investors (other than Burnham Hill Partners) have entered into a Common Stock and Warrant Purchase Agreement (the "Purchase Agreement") as of the Agreement Date pursuant to which the Company desires to sell to the Investors and the Investors desire to purchase from the Company shares of Common Stock, par value \$0.001 per share ("Common Stock"), of the Company (the "Shares").

B. As additional consideration for the purchase of the Shares, pursuant to the Purchase Agreement, the Company shall issue to the Investors certain warrants to purchase shares of Common Stock, and, in consideration of services as placement agent, the Company shall issue to Burnham Hill Partners certain warrants to purchase shares of Common Stock (collectively, the "Warrants").

C. A condition to the obligations under the Purchase Agreement is that the Company and the Investors enter into this Agreement in order to provide the Investors with certain rights to register the resale of the Shares.

AGREEMENT

In consideration of the mutual promises, representations, warranties, covenants and conditions set forth in this Agreement, the parties agree as follows:

1. Definitions. For purposes of this Agreement, the term:

- (a) "Registrable Securities" means (a) the Shares and the Warrant Shares or other securities issued or issuable to each Investor or its transferee or designee (i) upon exercise of the Warrants, or (ii) upon any dividend or distribution with respect to, any exchange for or any replacement of the Shares, Warrants or Warrant Shares or (iii) upon any conversion, exercise or exchange of any securities issued in connection with any such distribution, exchange or replacement; (b) securities issued or issuable upon any stock split, stock dividend, recapitalization or similar event with respect to the foregoing; (c) securities issued pursuant to Section 8 or Section 9 of the Purchase Agreement, Section 9 or Section 10 of this Agreement or Section 3 of the Warrants and (d) any other security issued as a dividend or other distribution with respect to, in exchange for, in replacement or redemption of, or in reduction of the liquidation value of, any of the securities referred to in the preceding clauses.
- (b) "Commission" means the Securities and Exchange Commission.
- (c) "Warrant Shares" means the shares of Common Stock issuable upon exercise of the Warrants.

1

- (d) "Securities Act" means the Securities Act of 1933, as amended.

2. Filing of Registration Statement.

(a) The Company shall prepare and file with the Commission a "shelf" registration statement (a "Registration Statement") on Form S-3 (or if such form is not available to the Company on another form appropriate for such registration in accordance herewith) covering all Registrable Securities for a secondary or resale offering to be made on a continuous basis pursuant to Rule 415, such Registration Statement to be filed by no later than June 30, 2004 (the "Target Filing Date"). The Company shall use its best efforts to cause the Registration Statement to be declared effective under the Securities Act not later than 90 days after the Target Filing Date (including filing with the Commission a request for acceleration of effectiveness in accordance with Rule 461 promulgated under the Securities Act within five business days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that a Registration Statement will not be "reviewed," or not be subject to further review) and to keep such Registration Statement continuously effective under the Securities Act until such date as is the earlier of (x) the date when all Registrable Securities covered by such Registration Statement have been sold or (y) the second anniversary of the Agreement Date (the "Effectiveness Period"). Upon the initial filing thereof, the Registration Statement shall cover at least 100% of the Shares and 100% of the Warrant Shares. Such Registration Statement also shall cover, to the extent allowable under the Securities Act and the Rules promulgated thereunder (including Securities Act Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. Not less than three business days prior to the filing of the Registration Statement or any related prospectus or any amendment or supplement thereto, the Company shall (i) furnish to counsel to SDS Management, LLC ("SDS"), copies of all such documents proposed to be filed, which documents (other than those incorporated by reference) will be subject to the review of such counsel, and (ii) at the request

of any holder of Registrable Securities cause its officers and directors, counsel and independent certified public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of counsel to such holders, to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file the Registration Statement or any such prospectus or any amendments or supplements thereto to which the holders of a majority of the Registrable Securities or counsel to SDS shall reasonably object in writing within three business days after their receipt thereof.

(b) The Company shall (i) prepare and file with the Commission such amendments, including post-effective amendments, to the Registration Statement as may be necessary to keep the Registration Statement continuously effective as to all Registrable Securities for the Effectiveness Period and to the extent any Registrable Securities are not included in such Registration Statement for reasons other than the failure of the Holder to comply with Section 4 hereof, shall prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all Registrable Securities; (ii) cause the related prospectus to be amended or supplemented by any required prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424 (or any

similar provisions then in force) promulgated under the Securities Act; (iii) respond as promptly as possible, and in no event later than 10 business days, to any comments received from the Commission with respect to the Registration Statement or any amendment thereto and as promptly as possible, upon request, provide counsel for SDS true and complete copies of all correspondence from and to the Commission relating to the Registration Statement; and (iv) comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by the Registration Statement during the applicable period in accordance with the intended methods of disposition by the Investors thereof set forth in the Registration Statement as so amended or in such prospectus as so supplemented.

(c) The Company shall notify the holders of Registrable Securities to be sold and counsel to SDS as promptly as possible (i) when a prospectus or any prospectus supplement or post-effective amendment to the Registration Statement is proposed to be filed (but in no event in the case of this subparagraph (i), less than three business days prior to the date of such filing); (ii) when the Commission notifies the Company whether there will be a "review" of such Registration Statement; and (iii) with respect to the Registration Statement or any post-effective amendment, when the same has become effective, and after the effectiveness thereof: (A) of any request by the Commission or any other Federal or state governmental authority for amendments or supplements to the Registration Statement or prospectus or for additional information; (B) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement covering any or all of the Registrable Securities or the initiation of any proceedings for that purpose; (C) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any proceeding for such purpose; and (D) if the financial statements included in the Registration Statement become ineligible for inclusion therein or of the occurrence of any event that makes any statement made in the Registration Statement or prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to the Registration Statement, prospectus or other documents so that, in the case of the Registration Statement or the prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. Without limitation to any remedies to which the Investors may be entitled under this Agreement, if any of the events described in Section 2(c)(iii) occur, the Company shall use its best efforts to respond to and correct the event.

(d) Each Investor acknowledges that the Registration Statement shall also register a significant amount of shares of Common Stock owned by other stockholders which have "piggy-back" registration rights under various agreements with the Company.

3. Piggy-back Registration.

(a) Right to Piggy-back. If (but without any obligation to do so other than as provided above) the Company proposes to register any of shares of Common Stock in connection with any offering of shares of Common Stock pursuant to a registration statement under the Securities Act (other than a registration relating solely to the sale of securities to participants in a Company stock plan or a transaction covered by Rule 145 under the Securities Act, or a registration in which the only stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered) (a "Public Offering"), the Company shall promptly give each Investor written notice of such registration, at least 10 business days prior to the filing of any registration statement under the Securities Act. Upon the written request of the Investor given within 5 business days after delivery of such written notice by the Company, the Company shall, subject to the provisions of Section 3(b) below, use its best efforts to cause to be registered under the Securities Act on such registration statement all of the Registrable Securities that the Investor has requested to be registered.

(b) Underwriting. If the registration statement under which the Company gives notice under Section 3(a) is for an underwritten Public Offering, the Company shall so advise the Investor. The right of the Investor to registration pursuant to Section 3(a) above shall be conditioned upon the Investor's participation in such underwriting and the inclusion of the Registrable Securities in the underwriting to the extent provided herein. The Investor shall (together with the Company and any other holders of Company securities distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for underwriting by the Company. Notwithstanding any other provision of Sections 3(a), if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may exclude some or all of the Registrable Securities from such registration and underwriting.

4. Furnish Information. It shall be a condition to the Company's obligations to take any action under this Agreement with respect to the Registrable Securities of any Investor that the Investor shall promptly furnish to the Company, upon request, such information regarding itself, the Registrable Securities, and the intended method of disposition of such securities as shall be necessary to effect the registration of their Registrable Securities. In that connection, each selling Investor shall be required to represent to the Company that all such information which is given is both complete and accurate in all material respects when made.

5. Delay of Registration. The Investor shall have no right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of the terms of this Agreement.

6. Termination of Registration Rights. The Company shall have no obligation to register the Registrable Securities pursuant to this Agreement or otherwise following the end of the Effectiveness Period.

7. Indemnification.

(a) To the extent permitted by law, the Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Investor, the officers, directors, agents and employees of each of them, each Person who controls any such Investor (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, agents and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, costs of preparation and reasonable attorneys' fees) and expenses (collectively, "Losses"), as incurred, arising out of or relating to any untrue or alleged untrue statement of a material fact contained or incorporated by reference in the Registration Statement, any prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any prospectus or form of prospectus or amendment or supplement thereto, in the light of the circumstances under which they were made) not misleading (collectively a "Violation"), provided, however, that the indemnity agreement contained in this Section 7(a) shall not apply to amounts paid in settlement of any such Loss if such settlement is effected without the prior written consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable to any Investor or officer, director, agent or controlling person thereof to the extent that any Loss arises out of or is based upon untrue statements, omissions or violations which occur in reliance upon and in conformity with information furnished expressly for use in connection with such registration by any such Investor or officer, director or agent thereof or any controlling person.

(b) To the extent permitted by law, each Investor shall, notwithstanding any termination of this Agreement, indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls the Company (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act), any underwriter, any other stockholder of the Company selling securities in such Registration Statement and any controlling person of any such underwriter or other stockholder, against any Losses, as incurred, arising out of or relating to any Violation in each case to the extent that such Violation occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Investor or officer, director, agent or controlling person thereof ; provided, however, that the indemnity agreement contained in this Section 7(b) shall not apply to amounts paid in settlement of any such Loss if such settlement is effected without the consent of the Investor, which consent shall not be unreasonably withheld. Notwithstanding anything to the contrary contained herein, the Investor shall be liable under this Section 7(b) for only that amount as does not exceed the net proceeds to such Investor as a result of the sale of Registrable Securities pursuant to such Registration Statement.

8. Listing. The Company shall cause all Registrable Securities to be listed on any United States securities exchange, quotation system, market or over-the-counter bulletin board on which similar securities issued by the Company are then listed and use its best efforts to maintain such listing.

9. Failure to File Registration Statement. The Company and the Investors agree that the Investors will suffer damages if the Registration Statement is not filed on or prior to the Target Filing Date and maintained in the manner contemplated herein during the Effectiveness Period. The Company and the Investors further agree that it would not be feasible to ascertain the extent of such damages with precision. Accordingly, if the Registration Statement is not filed on or prior to the Target Filing Date, the Company shall pay in cash or in shares of Common Stock (at the Company's option) as liquidated damages for such failure and not as a penalty to each Investor an amount equal to two percent (2%) of the total purchase price such Investor paid for the Shares and Warrants purchased pursuant to the Purchase Agreement (the "Total Purchase Price") for each 30-day period until the Registration Statement has been filed with the Commission, which shall be pro rated for such periods less than 30 days (the "Late Filing Damages"). Payments to be made to an Investor pursuant to this Section 9 shall be due and payable within 5 business days of any demand therefor by such Investor, but in no event more than once during any 30-day period. The parties agree that the Late Filing Damages represent a reasonable estimate on the part of the parties, as of the date of this Agreement, of the amount of damages that may be incurred by the Investors if the Registration Statement is not filed on or prior to the Target Filing Date. If the Company elects to pay the Late Filing Damages in shares of Common Stock, such shares of Common Stock shall be valued at the average closing price of a share of Common Stock on the applicable trading market for the Common Stock for the 5-trading-day period immediately preceding the date of demand of such Late Filing Damages.

10. Failure of Registration Statement to Become Effective. The Company and the Investors agree that the Investors will suffer damages if the Registration Statement is not declared effective by the Commission on or prior to the ninetieth (90th) day following the Target Filing Date (the "Effectiveness Deadline"). The Company and the Investors further agree that it would not be feasible to ascertain the extent of such damages with precision. Accordingly, if the Registration Statement is not declared effective by the Commission prior to the Effectiveness Deadline, the Company shall pay in cash or in shares of Common Stock (at the Company's option) as liquidated damages for such failure and not as a penalty to each Investor an amount equal to (a) two percent (2%) of such Investor's Total Purchase Price for the first 30-day period following the Effectiveness Deadline (which shall be pro rated for such periods less than 30 days) and (b) one percent (1%) of such Investor's Total Purchase Price for each subsequent 30-day period (which shall be pro rated for such periods less than 30 days) (the "Non-Effectiveness Damages") until either (x) the Registration Statement is declared effective by the Commission or (y) the first anniversary of the Agreement Date. Payments to be made to an Investor pursuant to this Section 10 shall be due and payable within 5 business days of any demand therefor by such Investor, but in no event more than once during any 30-day period. The parties agree that the Non-Effectiveness Damages represent a reasonable estimate on the part of the parties, as of the date of this Agreement, of the amount of damages that may be incurred by the Investors if the Registration Statement is not declared effective on or prior to the ninetieth (90th) day following the Target Filing Date. If the Company elects to pay the Non-Effectiveness Damages in shares of Common Stock, such shares of Common Stock shall be valued at the average closing price of a share of Common Stock on the applicable trading market for the Common Stock for the 5-trading-day period immediately preceding the date of demand of such Non-Effectiveness Damages.

11. Listing; Exchange Act Reports.

(a) The Company shall use commercially reasonable best efforts to list its Common Stock on the American Stock Exchange.

(b) With a view to making available to the Investors the benefits of Rule 144 promulgated under the Securities Act or any other similar rule or regulation of the Commission that may at any time permit the investors to sell securities of the Company to the public without registration ("Rule 144"), the Company agrees to:

(i) make and keep public information available, as those terms are understood and defined in Rule 144;

(ii) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Securities Exchange Act of 1934, as amended (the "Exchange Act") so long as the Company remains subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144; and

(iii) furnish to each Investor so long as such Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144, the Securities Act and the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company to the extent any such report is not available on the Commission's website, and (iii) such other information as may be reasonably requested to permit the Investors to sell such securities pursuant to Rule 144 without registration.

12. Miscellaneous.

(a) Governing Law. This Agreement, all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the state of California, without giving effect to principles of choice of law.

(b) Jurisdiction and Venue. Any legal action or other legal proceeding relating to this Agreement or the enforcement of any provision of this Agreement shall be brought or otherwise commenced in any state or federal court located in the county of San Diego, California. Each party to this Agreement: (i) expressly and irrevocably consents and submits to the jurisdiction of each state and federal court located in the county of San Diego, California and each appellate court located in the state of California, in connection with any such legal proceeding; (ii) agrees that each state and federal court located in the county of San Diego, California shall be deemed to be a convenient forum; and (iii) agrees not to assert, by way of motion, as a defense or otherwise, in any such legal proceeding commenced in any state or federal court located in the county of San Diego, California any claim that such party is not subject personally to the jurisdiction of such court, that such legal proceeding has been brought in an inconvenient forum, that the venue of such proceeding is improper or that this Agreement or the subject matter of this Agreement may not be enforced in or by such court.

(c) Entire Agreement. This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

(d) Notices. All notices and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in person or facsimile transmission (received at the facsimile machine to which it is transmitted prior to 5:00 p.m., local time, on a business day in the state of California, for the party to which it is sent), by courier or express delivery service or by registered or certified mail (postage prepaid, return receipt requested) to the respective parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this Section):

if to the Company:

ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131
Attention: Nicholas J. Virca
Facsimile: (858) 271-9678
Bingham McCutchen LLP
3 Embarcadero Center
San Francisco, CA 94111-4067
Attention: Henry D. Evans, Jr.
Facsimile: (415) 393-2286

with a copy to (not to constitute notice):

To the address set forth in Schedule 1 hereto.

if to the Investor:

(e) Amendments and Waivers. Any term of this Agreement may be amended, waived or departed from only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding. Any amendment or waiver effected in accordance with this Section 12(e) shall be binding upon each party to this Agreement, whether or not such party has signed such amendment or waiver and the Company. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

(f) Successors and Assigns. This Agreement is personal to each of the parties and may not be assigned without the written consent of the other parties; provided, however, that any of the Investors shall be permitted to assign this Agreement to any person to whom it assigns or transfers the Warrants or Registrable Securities, other than in a public resale, in compliance with applicable securities laws. Any assignee must be an "accredited investor" as defined in Rule 501(a) promulgated under the Securities Act.

(g) Severability. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Agreement shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions of this Agreement shall nevertheless remain in full force and effect.

(h) Interpretation. The parties hereto acknowledge and agree that: (i) each party and such party's counsel has reviewed the terms and provisions of this Agreement; (ii) the rule of construction to the effect that any ambiguities are resolved against the drafting party shall not be employed in the interpretation of this Agreement; and (iii) the terms and provisions of this Agreement shall be construed fairly as to the parties hereto and not in favor of or against any party, regardless of which party was generally responsible for the preparation of this Agreement. Whenever used herein, the singular number shall include the plural, the plural shall include the singular, the use of any gender shall include all persons.

(i) Headings and Captions. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and shall in no way modify, or affect the meaning or construction of any of the terms or provisions hereof.

(j) No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

(k) Registration Expenses. All fees and expenses incident to the performance of or compliance with this Agreement by the Company shall be borne by the Company whether or not the Registration Statement is filed or becomes effective and whether or not any Registrable Securities are sold pursuant to the Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses (A) with respect to filings required to be made with the American Stock Exchange and each other securities exchange, quotation system, market or over-the-counter bulletin board on which Registrable Securities are required hereunder to be listed, (B) with respect to filings required to be made with the Commission, and (C) in compliance with state securities or Blue Sky laws, (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities and of printing or photocopying prospectuses), (iii) messenger, telephone and delivery expenses, (iv) Securities Act liability insurance, if the Company so

desires such insurance, (v) fees and expenses of all other persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement, including, without limitation, the Company's independent public accountants (including, in the case of an underwritten offering, the expenses of any comfort letters or costs associated with the delivery by independent public accountants of a comfort letter or comfort letters) and legal counsel, and (vi) fees and expenses of the counsel to SDS, up to \$5,000, in connection with any Registration Statement hereunder. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit, the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder.

(l) Counterparts and Facsimile Delivery. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any signature page delivered by facsimile or other electronic image transmission shall be binding to the same extent as an original signature page, with regard to any agreement subject to the terms hereof or any amendment thereto. Any party who delivers such a signature page agrees to later deliver an original counterpart to any party who requests it.

(m) Independent Nature of Investors' Obligations and Rights. The obligations of each Investor under this Agreement are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under any such agreement. Nothing contained herein, and no action taken by any Investor pursuant thereto, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by such agreement. Each Investor shall be entitled to independently protect and enforce its rights, including without limitation, the rights arising out of this Agreement, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose. Each Investor represents that it has been represented by its own separate legal counsel in its review and negotiation of this Agreement. For reasons of administrative convenience only, the Investors acknowledge and agree that they and their respective counsel have chosen to communicate with the Company through Wiggin and Dana LLP, but Wiggin and Dana LLP does not represent any of the Investors in this transaction other than SDS (an affiliate of an Investor).

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Name: Nicholas J. Virca

Title: President and Chief Executive Officer

[Investor signature pages follow.]

Company Signature page to the Registration Rights Agreement

INVESTORS:

Print Exact Name: [see attached schedule for list of investors party to this agreement]

By: _____
Name:
Title:

[ADVENTRX Registration Rights Agreement]

SCHEDULE 1

INVESTORS

Alpha Capital AG

Anasazi Partners III LLC

Anasazi Partners III Offshore Fund Ltd.

Andrew J. Maffey

Bank Sal. Oppenheim jr. & Cie (Switzerland) Limited

BayStar Capital II, L.P.

Bristol Investment Fund, Ltd.

BSI New BioMedical Frontier (SICAV)

BSI SA

Capital Ventures International

Castle Creek Healthcare Partners LLC

Centrum Bank AG

Christopher P. Baker

Clariden Investments Ltd.

Crescent International Ltd

Crestview Capital Master, LLC

E Todd Tracy

Enable Growth Partners

Gamma Opportunity Capital Partners, LP

Gene Salkind, MD

Greenwich Growth Fund Limited

James Ladner

JIBS Equities

Kenneth Greif

Laddcap Value Partners LP

LB (Swiss) Privatbank AG

Lilienthal Investment Foundation

Longview Fund, LP

Michael Loew

North Sound Legacy Fund LLC

North Sound Legacy Institutional Fund LLC

North Sound Legacy International Ltd

OTAPE Investments LLC

Paul Scharfer

Peter Levitch

Platinum Long Term Growth

ProMed Offshore Fund, Ltd.

ProMed Partners II, L.P.

ProMed Partners, L.P.

RHP Master Fund, Ltd.

Richard Reiss

Ritchie Long/Short Trading Ltd.

Robert J. and Sandra S. Neborsky JTWR0S

Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82

Robert Wexler

Roland Hartman

Saad Investments Company Limited

Schroder & Co Bank AG

SDS Capital Group SPC, Ltd.

Sean M. Quinn

SF Capital Partners Ltd.

Stonestreet LP

Sunrise Overseas, Ltd.

TCMP3 Partners

Wayne Saker

Whalehaven Fund Limited

William B. Newman

Xmark Fund, L.P.

Xmark Fund, LTD

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT, dated as of [see attached schedule], 2001, by and between Biokeys Pharmaceuticals, Inc, a Delaware corporation (the "Company"), and the undersigned holder (the "Holder") of the Company's Promissory Notes (the "Notes") and warrants ("Warrants").

RECITALS

A. The Holder is purchasing from the Company, and the Company desires to issue and sell to the Holder, (i) Notes, on which the Holder will be receiving interest in the form of shares of the Company's Common Stock, \$.001 par value ("Common Stock") Common Stock, and (ii) Warrants entitling the Holder to purchase Common Stock upon the exercise thereof as set forth in Agreement (the "Subscription Agreement") between the Company and the Holder (collectively, with any other holders purchasing Notes and Warrants under a similar Subscription Agreement, "Holders").

B. As partial inducement for the Holder to purchase the Notes and Warrants, the Company hereby grants the Holder the registration rights set forth herein, upon the terms and subject to the conditions set forth herein.

The Company and the Holder hereby agree as follows:

1. DEFINITIONS. For the purposes of this Agreement:

(a) The terms "register," "registered" and "registration" refer to a registration effected by preparing and filing a registration statement or statements or similar documents in compliance with the Securities Act of 1933, as amended ("Securities Act"), the Securities Exchange Act of 1934, as amended ("Exchange Act") and pursuant to Rule 415 under the Securities Act or any successor rule providing for offering securities on a continuous basis ("Rule 415"), and the declaration or ordering of effectiveness of such registration statement or document by the Securities and Exchange Commission (the "SEC").

(b) The term "Registerable Securities" means (i) shares of Common Stock issued in payment interest on the Notes, (ii) shares of Common Stock issued upon the exercise of the Warrants, and (iii) any Common Stock issued in replacement of any Notes or Warrants, including any Registerable Securities sold by a holder of such Registerable Securities in a transaction in which Registerable Securities and registration rights under this Agreement are permitted to be assigned.

2. PIGGYBACK REGISTRATION.

1

(a) Notice. If, beginning at anytime from the earlier of (i) one year after issuance of the Notes by the Company and (ii) four months after the next public offering of securities by the Company, and continuing until December 31, 2006, the Company proposes to file a registration statement under the Securities Act (a "Registration Statement"), other than a registration on Form S-8 or Form S-4 with respect to an offering for its own account or for the account of others of any class of securities of the Company, then, at each such time, the Company shall give written notice of such intention to file a Registration Statement (a "Piggyback Notice") to each Holder at least twenty (20) days before the anticipated filing date of the Registration Statement. The Piggyback Notice shall describe the intended method of distribution, and shall offer each Holder the opportunity to register pursuant to such Registration Statement such Registerable Securities as the Holder may request in writing to the Company within twenty (20) days after the date the Holder first received the Piggyback Notice (a "Piggyback Registration"). After receipt of such request from the Holder, the Company shall take all necessary steps, subject to the provisions of the following paragraph (b), to include in the Registration Statement all Registrable Securities which the Company has been so requested to register by the Holder and to keep such Registration Statement effective until the later of (i) the sale of all such Registrable Securities and (ii) the date all such Registrable Securities may be sold without restrictions or limitations pursuant to Rule 144(k) of the Securities Act. The Company shall be entitled to withdraw a Registration Statement (not filed pursuant to Section 3 hereof) prior to its becoming effective, but such withdrawal shall not affect subsequent rights of Holder.

(b) Underwritten Registrations. In a registration pursuant to this Section 2 involving an underwritten offering, whether or not for sale for the account of the Company, any request pursuant to this Section 2 may require that all Registrable Securities be included in such offering on identical terms and conditions. If the offering is a public offering of the Company's securities, and if the managing underwriter with respect to such an offering advises the Company in writing that the inclusion of all the Registrable Securities which the Holder requested to be included in the Registration Statement would materially jeopardize the success of the offering, then the Company shall be required to include in the underwriting only that number, if any, of Registrable Securities which the underwriter advises the Company in writing may be sold without materially jeopardizing the offering. Any reduction to be made by such managing underwriter in the amount of Registrable Securities to be included in such underwriting shall be made pro rata among each Holder. Any Holder disapproving of the terms of any such underwriting may elect to withdraw such Holder's Registrable Securities from registration by written notice to the Company and the underwriter not later than 15 days prior to the effective date of any registration.

3. LIMITATIONS ON THE COMPANY'S OBLIGATIONS. The obligations of the Company to cause Registrable Securities to be registered under the Securities Act as provided in this Agreement are subject to each of the following limitations, conditions and qualifications:

(a) The Company shall be entitled, for a period of time not to exceed 45 consecutive days, to postpone the filing of any registration statement otherwise required to be prepared and filed by it pursuant to Section 2 or 3 above and/or to request that the Holders refrain from effecting any public sales or distributions of their Registrable Securities if the Board of Directors of the Company in good faith determines in its reasonable business judgment that such registration and/or such public sales or distributions would interfere in any material respect with any financing (other than an underwritten secondary offering of any securities of the Company), acquisition, corporate reorganization or other transaction or development involving the Company or any subsidiary of the Company that in the reasonable good faith business judgment of such Board is a transaction or development that is or would be material to the Company (a "Material Development Election"). The Board of Directors of the Company shall, as promptly as practicable, give the Holders written notice of any such Material Development Election. In the event of a determination by the Board of Directors to postpone the filing of a registration statement required to be filed under Section 2 or 3 hereof, the Company shall be required, if Holders of at least 50% of the outstanding Notes so request, to file such registration statement as soon as reasonably practicable after the Board of Directors of the Company shall determine, in its reasonable business judgment, that the filing of such registration statement and the offering thereunder shall not interfere with the aforesaid material transaction or development, but in any event no later than the end of such 45-day period. In addition, if the Board of Directors of the Company has requested that the Holders refrain from making public sales or distributions of their Registrable Securities, such Board shall, immediately following its determination that the Holders may recommence such public sales and distributions, notify such Holders in writing of such determination (but in any event no later than the end of such 45-day period).

4. REGISTRATION EXPENSES. All expenses incident to a Piggyback Registration, including, without limitation, all registration and filing fees, fees and expenses of compliance with securities or blue sky laws, printing expenses, messenger, telephone and delivery expenses, and fees and disbursements of counsel for the Company and counsel for the Holders (but not more than one counsel for the Holders per registration) and of all independent public accountants of the Company (including the expenses of any special audit and "comfort" letters required by or incident to the performance of such services), underwriting expenses (excluding (a) discounts, commissions or fees of underwriters, selling brokers, dealer managers or similar securities industry professionals relating to the distribution of the Registrable Securities which shall be paid by the selling Holders on a pro rata basis based on the number of Registrable Securities being sold by them and (b) any stock transfer taxes incurred with respect to the distribution of the Registrable Securities), securities acts liability insurance and fees and expenses of other persons or entities retained by the Company, will be borne by the Company whether or not any Registration Statement become effective.

5. HOLDBACK AGREEMENTS. In connection with any underwritten public offering for the Company's account, each Holder of Registrable Securities agrees not to effect any public sale or distribution of Common Stock, including a sale pursuant to Rule 144 or in reliance on any other exemption from registration under the Securities Act, during the 120 day period beginning on the effective date of any Registration Statement (except as a participant in such registration), but only if and to the extent requested in writing (with reasonable prior written notice) by an underwriter(s) and only if and to the extent (i) that all executive officers and directors of the Company holding five (5%) percent or more of the Company's securities, and (ii) all holders of ten (10%) percent or more of the Company's securities, enter into identical agreements. Any such agreement shall be in writing in a form satisfactory to a majority in interest of the Holders.

6. REGISTRATION PROCEDURES.

(a) In connection with any registration required or permitted under this Agreement, the Company covenants and agrees that it will promptly:

(i) prepare and file with the Commission a Registration Statement with respect to the Registrable Securities and use its continuing best efforts to cause such Registration Statement to become and remain effective;

(ii) notify each Holder of Registrable Securities included in such registration promptly after it shall receive notice thereof, of the time such Registration Statement has become effective or any supplement to any prospectus forming a part of such Registration Statement has been filed;

(iii) notify each Holder of Registrable Securities included in such registration promptly of any request by the Commission for the amendment or supplement of such Registration Statement or prospectus or of a request for additional information;

(iv) prepare and file with the Commission such amendments and supplements to such Registration Statement and the prospectus used in connection therewith and such other documents necessary to comply with the Securities Act, the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations promulgated under the Securities Act and the Exchange Act, as may be necessary to keep such Registration Statement filed pursuant to this Agreement effective for a period of not less than twelve months and comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement during such period in accordance with the intended methods of disposition by the sellers thereof set forth in such Registration Statement;

(v) furnish to each Holder of Registrable Securities included in such registration such number of copies of such Registration Statement, each amendment and supplement thereto, the prospectus included in such Registration Statement (including each preliminary prospectus) and such other documents, including correspondence with the Commission, as such Holder may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Holder;

(vi) concurrently with the effectiveness of the Registration Statement under the Securities Act, qualify the Registrable Securities under such other securities or "blue sky" laws of such jurisdictions as each Holder reasonably may request, and do any and all other acts and things necessary to enable each Holder to consummate the sale of the Registrable Securities owned by such Holder; provided that the Company shall not be required in connection with this paragraph (vi) to qualify as a foreign corporation or execute a general consent to service of process in any jurisdiction where the Company is not then so qualified or subject to service of process or to subject the Company to income taxation in any jurisdiction where it is not then so subject;

(vii) notify each Holder of Registrable Securities included in such registration, at any time when a prospectus relating thereto, is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in such Registration Statement contains an untrue statement of a material fact or omits any fact necessary to make any statement therein not misleading in light of the circumstances in which such statement is made, and prepare and furnish to such Holder a reasonable number of copies of a supplement to or amendment of such prospectus so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading in light of the circumstances in which they are made;

(viii) advise each Holder of Registrable Securities included in such registration promptly after it shall receive notice or obtain knowledge of the issuance of any stop order by the Commission suspending the effectiveness of any such Registration Statement or the initiation or threat of any proceeding for that purpose and promptly use its reasonable best efforts to prevent the issuance of any stop order or to obtain its withdrawal if such stop order should be issued;

(ix) use its reasonable best efforts to cause all such Registrable Securities to be listed on each securities exchange or reported on each consolidated reporting system on which similar securities issued by the Company are then listed or reported, as the case may be;

(x) provide a transfer agent and registrar for all such Registrable Securities not later than the effective date of such Registration Statement;

(xi) allow each Holder of Registrable Securities included in such registration to participate in the preparation of the Registration Statement, each prospectus included therein or filed with the Commission and each amendment or supplement thereto and make available for inspection by each Holder, any underwriter participating in any disposition pursuant to such Registration Statement, and any attorney, accountant or other agent retained by such Holder or such underwriter, all financial and other records, pertinent corporate documents and properties of the Company and cause the Company's officers, directors, employees and independent accountants to supply all information reasonably requested by such Holder, underwriter, attorney, accountant or agent in connection with such Registration Statement, subject to the right of the Company to require confidentiality agreements in a form reasonably acceptable to the Company and such Holder; and

(xii) furnish, at the request of any Holder or Holders requesting registration of Registrable Securities pursuant to this Agreement, on the date that such Registrable Securities are delivered to the underwriters for the sale pursuant to such registration or, if such Registrable Securities are not being sold through underwriters, on the date that the registration statement with respect to such Registrable Securities becomes effective, an opinion, dated such date, of the independent counsel representing the Company for the purposes of such registration, addressed to the underwriters, if any, and to the Holder or Holders making such request, covering such legal matters with respect to the registration in respect of which such opinion is being given as the Holder requesting such opinion may reasonably request; provided such matters are of a nature that legal counsel are normally required to opine upon in connection with such a registration or offering, and a letter dated such date, from the independent certified public accountants of the Company, addressed to the underwriters, if any, and to the Holder or Holder making such request, stating that they are independent certified public accountants within the meaning of the Securities Act and that in the opinion of such accountants, the financial statements and other financial data of the Company included in the registration statement or prospectus, or any amendment or supplement thereto, comply as to form in all material respects with the applicable accounting requirements of the Securities Act. Such letter from the independent certified public accountants shall additionally cover such other financial matters with respect to the registration in respect of which such letter is being given as the Holder requesting such letter may reasonably request; provided such matters are of a nature that accountants are normally required to opine upon in connection with such registration.

(b) The Company may require each Holder participating in a registration hereunder to furnish the Company such information regarding such Holder and the distribution of such Registrable Securities as the Company may from time to time reasonably request in writing and as shall be required by law to effect such registration. Each holder, as a condition of participating in such registration, shall furnish such information, which shall be complete, correct and not misleading.

(c) The Holder or Holders who include Registrable Securities in any registration under this Agreement shall distribute those Registrable Securities in a manner consistent with the distribution described in the relevant registration statement.

7. RULE 144. After a Public Offering, the Company shall take all actions reasonably necessary to enable the Holder to sell Registrable Securities without registration under the Securities Act within the limitation of the exemptions provided by (a) Rule 144 under the Securities Act, as such Rule may be amended from time to time, or (b) any similar rule or regulation hereafter adopted by the Commission, including, without limiting the generality of the foregoing, filing on a timely basis all reports required to be filed under the Exchange Act, but shall not be liable for any damages resulting from an inability of a Holder to rely on Rule 144 if the Company was not timely in its filings because of circumstances beyond its reasonable control. Upon the request of any Holder, the Company will deliver to such Holder a written statement as to whether it has complied with such requirements and shall provide such Holder with such publicly filed documents of the Company as are reasonably requested by such Holder in connection with such sale.

8. INDEMNIFICATION.

(a) Indemnification by the Company. In the event of any registration of any of the Registrable Securities under the Securities Act pursuant to this Agreement, the Company will indemnify and hold harmless each Holder participating in the registration, its directors, officers and partners and each underwriter involved in such registration and each other person, if any, who controls each selling Holder or underwriter within the meaning of the Securities Act or the Exchange Act against any losses, claims, damages or liabilities, joint or several, to which each selling Holder or its officers, directors, or partners or underwriter may become subject insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in any Registration Statement under which such Registrable Securities were registered under the Securities Act, any preliminary prospectus or final prospectus contained in such Registration Statement, or any amendment or supplement to such Registration Statement, or arise out of or are based upon the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances in which they are made, and will reimburse such selling Holder, its officers, directors, and partners and such underwriter and each such controlling person for any legal or any other expenses reasonably incurred by any of them as they are incurred in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable to any selling Holder or its officers, directors, or partners, or underwriter and controlling persons in any such case to the extent

that any such loss, claim, damage or liability arises out of or is based upon any untrue statement or omission made in such Registration Statement, preliminary prospectus or final prospectus, or any such amendment or supplement thereto, (i) in reliance upon and in conformity with information furnished to the Company, in writing, by or on behalf of such selling Holder or its officers, directors, or partners, or underwriter and controlling persons, specifically for use in the preparation of such Registration Statement, preliminary prospectus or final prospectus or amendment or supplement thereto, or (ii) where such untrue statement or omission or alleged untrue statement or omission (A) was corrected in a subsequent final prospectus delivered in sufficient number to the selling Holder and with sufficient time to permit distribution by such selling Holder, (B) such selling Holder failed to so distribute such subsequent final prospectus, and (C) to the extent such distribution would have avoided the applicable loss, claim, damage, liability or action.

(b) Indemnification by the Holder. In the event of any registration of any of the Registrable Securities under the Securities Act pursuant to this Agreement, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, each of its directors, and officers, each underwriter involved in such registration, each other selling Holder and their respective officers, directors, and partners and each person, if any, who controls the Company or any such underwriter or selling Holder within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages or liabilities (or actions in respect thereof), to which the Company, such directors and officers, such underwriter or selling Holder or its respective officers, directors, stockholders or partners or controlling person may become subject, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in any Registration Statement under which such Registrable Securities were registered under the Securities Act, any preliminary prospectus or final prospectus contained in such Registration Statement, or any amendment or supplement to such Registration Statement, or arise out of or are based upon any omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances in which they are made, and will reimburse the Company, the underwriters, each other selling Holder and their respective officers, directors, stockholders, partners and controlling person for any legal or any other expenses reasonably incurred by any of them in connection with investigating or defending any such loss, claim, damage, liability or action, if the statement or omission was made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of such selling Holder or its officers, directors, stockholders or partners or controlling persons, specifically for use in connection with the preparation of such Registration Statement, preliminary prospectus or final prospectus or amendment or supplement thereto; provided, however, that the maximum obligation of each selling Holder for indemnification shall be limited to the net proceeds received by it from the sale of Registrable Securities pursuant to such Registration Statement.

(c) Required Notices. Each party entitled to indemnification under this Section 8 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after the Indemnified Party has actual knowledge of any claim as to which indemnity may be sought and, with respect to third party claims, shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting from it, provided that counsel for the Indemnifying Party who shall conduct the defense of such claim or litigation must be approved by the Indemnified Party (whose approval shall not unreasonably be withheld), and provided further that the failure of any Indemnified Party to give notice as provided in this Section 8(c) shall not relieve the Indemnifying Party of its obligations under Sections 8(a) or (b), as the case maybe except to the extent such Indemnifying Party was actually prejudiced thereby. The Indemnified Party shall have the right to employ its own counsel in any claim or litigation, but, with respect to third party claims or litigation, the fees and expenses of counsel shall be at the expense of such Indemnified Party, when and as incurred, unless the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defense of such claim or litigation (in which case the Indemnifying Party shall not have the right to direct the defense of such claim or litigation on behalf of the Indemnified Party), or the Indemnifying Party shall fail, within a reasonable time after notice of the claim, to have given written notice of its intention to assume such defense, and to have employed counsel to assume the defense of such claim or litigation, or the Indemnifying Party fails timely and actively to assume or to continue the defense of such claim. No Indemnifying Party, in the defense of any claim or litigation, shall, without the consent of the Indemnified Party, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect of such third party claim or litigation. In no event shall an Indemnified Party consent to any entry of any judgment in a third party claim or litigation, or settle a third party claim or litigation without the prior written consent of the Indemnifying Party unless the Indemnifying Party fails to timely give notice of its intention to assume defense or timely and actively to assume and continue such defense.

9. ASSIGNABILITY. The rights granted in this Agreement may be assigned in whole or in part by a Holder, but only along with a permitted assignment of Registrable Securities by such Holder. Nothing contained herein shall be deemed to permit an assignment, transfer or other disposition of Notes or Warrants in violation of the terms and conditions of the Subscription Agreement.

10. NOTICES.

(a) All notices, consents, requests, demands and other communications required or permitted to be given under this Agreement shall be in writing and delivered personally, receipt acknowledged, or mailed by registered or certified mail, postage prepaid, return receipt requested, or sent by overnight express delivery service, or given by telecopier transmission and confirmed by one of the preceding notice delivery methods, addressed to the parties hereto as follows (or to such other addresses as any of the parties hereto shall specify by notice given in accordance with this provision):

If to the Company to:
Biokeys Pharmaceuticals, Inc.
333 N. Sam Houston Parkway
Suite 1035
Houston, Texas 77060

or at such other address as it may have furnished in writing to the Holder of Registrable Securities at the time outstanding, or

If to the Holder of any Registrable Securities:

To the address of such Holder as recorded in the stockholder records of the Company.

(b) All such notices, consents, requests, demands and other communications shall be deemed given when personally delivered as aforesaid, or, if mailed or sent by overnight service as aforesaid, on the third business day after the mailing thereof or on the day actually received, if earlier, except for a notice of a change of address which shall be effective only upon receipt.

11. AMENDMENT, WAIVER AND TERMINATION. This Agreement maybe amended, and the observance of any term of this Agreement may be waived, but only with the written consent of the Company and the Holder. No delay on the part of any party in the exercise of any right, power or remedy shall operate as a waiver thereof, nor shall any single or partial exercise by any party of any right, power or remedy preclude any other or further exercise thereof, or the exercise of any other right, power or remedy.

12. COUNTERPARTS. One or more counterparts of this Agreement may be signed by the parties, each of which shall be an original but all of which together shall constitute one and the same instrument.

13. BINDING EFFECT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, heirs, personal representatives, administrators, executors and permitted assigns. Nothing contained in this Agreement is intended to confer upon any person or entity, other than the parties hereto or their respective successors, heirs, personal representatives, administrators, executors or permitted assigns, any rights, benefits, obligations remedies or liabilities under or by reason of this Agreement.

14. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of New York with respect to contracts made and to be fully performed therein, without regard to the conflicts of laws principles thereof. The parties hereto hereby agree that any suit or proceeding arising under this Agreement, or in connection with the consummation of the transactions contemplated hereby, shall be brought solely in a federal or state court located in the City, County and State of New York. By its execution hereof, the Company hereby consents and irrevocably submits to the in personam jurisdiction of the federal and state courts located in the City, County and State of New York and agrees that any process in any suit or proceeding commenced in such courts under this Agreement may be served upon it personally or by certified or registered mail, return receipt requested, or by Federal Express or other courier service, with the same force and effect as if personally served upon it in New York City (or in the city or county in which such other court is located). The parties hereto each waive any claim that any such jurisdiction is not a convenient forum for any such suit or proceeding and any defense of lack of in personam jurisdiction with respect thereto.

15. INVALIDITY OF PROVISIONS. If any provision of this Agreement is or becomes invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not be affected thereby.

16. HEADINGS. The headings in this Agreement are for convenience of reference only and shall not be deemed to alter or affect the meaning or interpretation of any provisions hereof.

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first set forth above.

BIOKEYS PHARMACEUTICALS, INC.

By: /s/ Warren Lau

President

HOLDER:

(see schedule on next page)

Print Name

Position (if applicable):

SCHEDULE OF HOLDERS

Each of the persons listed below executed this form of Registration Rights Agreement as a "Holder" effective as of the date set forth opposite such persons name below:

HOLDER	EFFECTIVE DATE
Ernst Pernet	November 14, 2001
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	October 29, 2001

THIS WARRANT HAS BEEN, AND THE SHARES OF COMMON STOCK WHICH MAY BE RECEIVED PURSUANT TO THE EXERCISE OF THIS WARRANT WILL BE, ACQUIRED SOLELY FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF. NEITHER THIS WARRANT NOR SUCH SHARES (TOGETHER, THE "SECURITIES") HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH DISPOSITION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT AND OF ANY APPLICABLE STATE SECURITIES LAWS.

NO. W-___

WARRANT TO PURCHASE COMMON STOCK

THIS CERTIFIES THAT, for good and valuable consideration, [SEE ATTACHED SCHEDULE FOR NAMES OF HOLDERS] (the "HOLDER") is entitled to subscribe for and purchase from Biokeys Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), [SEE ATTACHED SCHEDULE FOR NUMBER OF SHARES] fully paid and nonassessable shares of Common Stock, par value \$0.001 per share ("COMMON STOCK"), of the Company (as adjusted pursuant to Section 3 hereof) (the "WARRANT SHARES") at a price per share equal to Sixty Cents (\$0.60) (as adjusted pursuant to Section 3 hereof) (the "EXERCISE PRICE"), subject to the provisions and upon the terms and conditions hereinafter set forth.

1. METHOD OF EXERCISE; PAYMENT.

(A) Exercise Period. The purchase rights represented by this Warrant may be exercised by the Holder during the term of this Warrant (as set forth in Section 9 hereof) in whole or in part, at any time after the Commencement Date, as defined below, by the surrender of this Warrant (with the notice of exercise form attached hereto as Exhibit A (the "NOTICE OF EXERCISE") duly executed) at the principal office of the Company.

(B) Cash Exercise. Upon exercise of this Warrant, the Holder shall pay the Company an amount equal to the Exercise Price multiplied by the number of Warrant Shares being purchased, by wire transfer or certified check payable to the order of the Company. The person or persons in whose name(s) any certificate(s) representing the Warrant Shares shall be issuable upon exercise of this Warrant shall be deemed to have become the holder(s) of record of, and shall be treated for all purposes as the record holder(s) of, the Warrant Shares represented thereby (and such Warrant Shares shall be deemed to have been issued) immediately prior to the close of business on the date or dates upon which this Warrant is exercised.

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(C) Stock Certificates. In the event of any exercise of the rights represented by this Warrant, certificates for the Warrant Shares so purchased shall be delivered to the Holder within a reasonable time after exercise and, unless this Warrant has been fully exercised or has expired, a new Warrant representing the shares with respect to which this Warrant shall not have been exercised shall also be issued to the Holder within such time.

2. STOCK FULLY PAID; RESERVATION OF SHARES. All of the Warrant Shares issuable upon the exercise of the rights represented by this Warrant will, upon issuance and receipt of the Exercise Price therefor, be fully paid and nonassessable, and free from all preemptive rights, rights of first refusal or first offer, taxes, liens and charges with respect to the issuance thereof. During the period within which the rights represented by this Warrant may be exercised, the Company shall at all times have authorized and reserved for issuance a sufficient number of Warrant Shares to provide for the exercise of the rights represented by this Warrant.

3. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF SHARES. The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price therefor shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(A) Reclassification, Consolidation or Reorganization. In case of any reclassification of the Common Stock (other than a change in par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation (other than a Change of Control, as defined below) (any of which is a "REORGANIZATION TRANSACTION"), the Company, or such successor corporation as the case may be, shall execute a new warrant, providing that the holder of this Warrant shall have the right to exercise such new warrant, and procure upon such exercise and payment of the same aggregate Exercise Price, in lieu of the Warrant Shares theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other securities, money and property as would be payable for the Warrant Shares issuable upon exercise of this Warrant as if such Warrant Shares were outstanding on the consummation of the Reorganization Transaction. For purposes of this Warrant, the term "CHANGE OF CONTROL" shall mean (i) any acquisition of the Company by means of merger, acquisition, or other form of corporate reorganization in which outstanding shares of the Company are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary or parent (other than a reincorporation transaction or change of domicile) and pursuant to which the holders of the outstanding voting securities of the Company immediately prior to such consolidation, merger or other transaction fail to hold equity securities

representing a majority of the voting power of the Company or surviving entity immediately following such consolidation, merger or other transaction (excluding voting securities of the acquiring corporation held by such holders prior to such transaction) or (ii) a sale of all or substantially all of the assets of the Company.

(B) Stock Splits, Dividends and Combinations. In the event that the Company shall at any time subdivide the outstanding shares of Common Stock, or shall issue a stock dividend on its outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such subdivision or to the issuance of such stock dividend shall be proportionately increased, and the Exercise Price shall be proportionately decreased, and in the event that the Company shall at any time combine the outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such combination shall be proportionately decreased, and the Exercise Price shall be proportionately increased, effective at the close of business on the date of such subdivision, stock dividend or combination, as the case may be.

4. TRANSFER OF WARRANT. This Warrant may only be transferred in compliance with federal and state securities laws and, except as provided below, may not be transferred except with the prior written consent of the Company, which shall not be unreasonably withheld or delayed, and any purported transfer without such prior written consent shall be null and void; provided, however, that the Company may withhold its consent to transfer or assignment of this Warrant to any person or entity who is deemed to be a competitor or prospective competitor of the Company, such determination to be made in the reasonable judgment of the Board.

5. CONDITION TO EXERCISE OF WARRANT. Each certificate evidencing the Warrant Shares issued upon exercise of this Warrant shall be stamped or imprinted with a legend substantially in the following form:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF, AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR UNLESS SOLD PURSUANT TO RULE 144 OF SUCH ACT.

6. FRACTIONAL SHARES. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

7. REPRESENTATIONS AND WARRANTIES BY THE HOLDER. The Holder represents and warrants to the Company as follows:

(A) This Warrant is being acquired for the Holder's own account, for investment and not with a view to, or for resale in connection with, any distribution or public offering thereof within the meaning of the Securities Act of 1933, as amended (the "SECURITIES ACT"). Upon exercise of this Warrant, the Holder shall, if so requested by the Company, confirm in writing, in a form reasonably satisfactory to the Company, that the Warrant Shares issuable upon exercise of this Warrant are being acquired for investment and not with a view toward distribution or resale. The Holder is an "accredited investor" within the meaning of the Securities Act.

(B) The Holder understands that this Warrant and the Warrant Shares have not been registered under the Securities Act by reason of their issuance in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act pursuant to Section 4(2) thereof and that the Company's reliance upon such exemption is predicated, in part, upon the Holder's representations and warranties set forth in this Agreement. The Holder understands that this Warrant and the Warrant Shares must be held by the Holder indefinitely, and that the Holder must therefore bear the economic risk of such investment indefinitely, unless a subsequent disposition thereof is registered under the Securities Act or is exempted from such registration. The Holder further understands that this Warrant and the Warrant Shares have not been registered under the securities laws of any state.

(C) The Holder acknowledges that it is acquiring this Warrant without being offered or furnished any offering literature or prospectus. The Holder understands that neither the United States Securities and Exchange Commission, nor any governmental agency charged with the administration of the securities laws of any state nor any other governmental agency has passed upon or reviewed the merits or qualifications of, or recommended or approved the issuance of this Warrant or the Warrant Shares.

(D) The Holder understands that, except as provided in Section 10 of this Warrant, the Company is under no obligation to register this Warrant or the Warrant Shares.

(E) The Holder is a bona fide resident and domiciliary (not a temporary or transient resident) of the state indicated in the signature page hereto and the Holder has no present intention of becoming a resident of any other state or jurisdiction.

(F) The Holder has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the purchase of this Warrant and the Warrant Shares purchasable pursuant to the terms of this Warrant and of protecting its interests in connection therewith. The Holder is able to bear the economic risk of the purchase of the Warrant Shares pursuant to the terms of this Warrant.

8. RIGHTS OF STOCKHOLDERS. No holder of this Warrant shall be entitled, as a Warrant holder, to vote or receive dividends or be deemed the holder of Warrant Shares or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise with respect to the Warrant Shares until this Warrant shall have been exercised and the Warrant Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

9. TERM OF WARRANT.

(A) This warrant shall become exercisable on the date of issuance set forth below (the "COMMENCEMENT DATE") and shall no longer be exercisable as of the earlier of (i) 5:00 p.m., San Diego, California local time, on the date that is the three-year anniversary of the Commencement Date; (ii) immediately prior to a Change of Control and (iii) 5:00 p.m., San Diego, California local time, on the Call Termination Date (as defined below).

(B) Notwithstanding anything herein to the contrary, at any time after the Commencement Date, if the closing price of one share of Common Stock quoted in the over-the-counter market summary, the Bulletin Board Exchange, the Nasdaq National Market or the closing price quoted on a national securities exchange, whichever is applicable, is greater than 200% of the Exercise Price for a period of 20 consecutive trading days, then thereafter the Company shall have the right (the "COMPANY TERMINATION RIGHT"), exercisable at the Company's sole discretion, to terminate this Warrant with at least 10-days' prior written notice (the "TERMINATION NOTICE") which Termination Notice shall state the date this Warrant shall terminate (the "CALL TERMINATION DATE"); provided, however, that the Company may not exercise the Company Termination Right unless a registration statement registering the Warrant Stock has been declared effective and is effective from the date of delivery of the Termination Notice until the Call Termination Date, provided, further, that if this Warrant is terminated pursuant to this Section 9(b), then the Company shall use commercially reasonable efforts to maintain the effectiveness of a registration statement registering the Warrant Stock until the date that is 15 days after the Call Termination Date or, if earlier, the date the Holder shall have sold all its Warrant Shares covered by such registration statement.

10. REGISTRATION RIGHTS.

(A) Piggy-back Rights. If (but without any obligation to do so) the Company proposes to register any shares of Common Stock solely for cash pursuant to a registration statement under the Securities Act, other than a registration solely in connection with a transaction under Rule 145 promulgated under the Securities Act (a "PUBLIC OFFERING"), the Company shall promptly give the Holder written notice of such Public Offering, at least 10 business days prior to the filing of the registration statement under the Securities Act regarding such Public Offering. Upon the written request of the Holder given within 5 business days after delivery of such written notice by the Company, the Company shall, subject to the provisions of Section 10(b) below, use its best efforts to cause to be registered under the Securities Act all of the Warrant Shares that the Holder has requested to be registered.

(B) Underwriting. If the registration statement under which the Company gives notice under this Section 10 is for an underwritten Public Offering, the Company shall so advise the Holder. The right of the Holder to registration pursuant to Section 10(a) above shall be conditioned upon the Holder's participation in such underwriting and the inclusion of the Warrant Shares in the underwriting to the extent provided herein. The Holder shall (together with the Company and any other holders of Company securities distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for underwriting by the Company. Notwithstanding any other provision of this Section 10, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may exclude some or all of the Warrant Shares from such registration and underwriting.

(C) Furnish Information. It shall be a condition to the Company's obligations to take any action under this Section 10 that the Holder shall furnish to the Company such information regarding itself, the Warrant Shares, and the intended method of disposition of such Warrant Shares as shall be required to effect the registration of any Warrant Shares. In that connection, the Holder shall be required to represent to the Company that all such information which is given is both complete and accurate in all material respects when made.

(D) Delay of Registration. The Holder shall have no right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 10.

(E) Termination of Registration Rights. The Company shall have no obligation to register Warrant Shares pursuant to this Section 10 with respect to any request or requests made by any Holder on or after that date which is one year after the date such Warrant Shares were deemed to be acquired for purposes of determining the holding period of such Warrant Shares under Rule 144 of the Act.

11. MISCELLANEOUS.

(A) This Warrant is being delivered in the state of California and shall be construed and enforced in accordance with and governed by the laws of the state of California, without giving effect to principles of conflicts of laws.

(B) The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

(C) The terms of this Warrant shall be binding upon and shall inure to the benefit of any successors or assigns of the Company and of the Holder and of the Warrant Shares issued or issuable upon the exercise hereof.

(D) Any notice provided for or permitted under this Warrant shall be treated as having been given (a) upon receipt, when delivered personally, (b) upon receipt, when sent by confirmed facsimile or telecopy, (c) one day after sending, when sent by commercial overnight courier with written verification of receipt, or (d) three business days after deposit with the United States Postal Service, when mailed postage prepaid by certified or registered mail, return receipt requested, addressed (a) if to the Company, at 9948 Hibert Street, Suite 100, San Diego, CA 92131, facsimile: (858) 271-9678, Attention: Nicholas J. Virca, or (b) if to the Holder, at such address or facsimile number as the Holder shall have furnished to the Company in writing, or at such other place of which the other party has been notified in accordance with the provisions of this Section 11(d).

(E) This Warrant constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof.

(F) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at the Holder's expense will execute and deliver to the holder of record, in lieu thereof, a new Warrant of like date and tenor.

(G) This Warrant and any provision hereof may be amended, waived or terminated only by an instrument in writing signed by the Company and the Holder.

(H) Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to the foregoing terms and conditions.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer.

Issued May 28, 2003

BIOKEYS PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Name: Nicholas J. Virca

Title: President and Chief Executive Officer

[SEE ATTACHED SCHEDULE]

By: _____

Name: _____

Title: _____

Address: _____

Facsimile: _____

EXHIBIT A

NOTICE OF EXERCISE

TO: Biokeys Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131

The undersigned hereby elects to purchase _____ shares of Common Stock, par value \$0.001 per share, of the Company ("COMMON STOCK") pursuant to the terms of Section 1(b) of the Warrant to Purchase Common Stock dated May ____, 2003 (the "WARRANT"), and tenders herewith payment of the purchase price of such shares in full.

Please issue a certificate or certificates representing said _____ shares of Common Stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

The undersigned hereby represents and warrants that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale, in connection with the distribution thereof, and that the undersigned has no present intention of distributing or reselling such shares, and that all representations and warranties of the undersigned set forth in Section 7 of the Warrant are true and correct as of the date hereof.

[NAME OF WARRANT HOLDER]

By: _____

Name: _____

Title: _____

Date: _____

SCHEDULE OF WARRANTHOLDERS

ADVENTRX Pharmaceuticals, Inc. issued this form of Warrant to Purchase Common Stock to each of the persons listed below for the purchase of up to the number of shares of Common Stock listed opposite such person's name below.

HOLDER	WARRANT NO.	SHARES
Balkrishna E. Shagrithaya	WC-107	37,500
Centrum Bank AG	WC-108	1,500
EFG Private Bank S.A.	WC-109	750
James Ladner	WC-110	7,495
Schroder & Co. Bank AG	WC-111	48,000
Hans Gaverstrom	WC-112	3,728
The Prudent Bear Fund	WC-113	375,000
Franco Merlo	WC-114	2,989
Tek Investments, LP	WC-115	375,000
Robert A. Melnick	WC-116	37,500
Robert Neborsky, M.D., Inc. Combination Retirement Trust	WC-117	15,000
Deborah Young, MD APC Employees Retirement Trust	WC-118	7,500
Mark Collins	WC-119	18,750
Clariden Investments Ltd.	WC-120	16,500
Paul H. Robbins	WC-121	37,500
Michael Loew	WC-122	37,500
Schroder & Co. Bank AG	WC-123	45,000
Ernst Pernet	WC-124	15,000
David Wiener Revocable Trust -96	WC-125	15,000
Roger S. Sherman	WC-126	7,500
Jillian E. and Richard J. Boldway	WC-127	7,500
Sabbatical Ventures, LLC	WC-128	15,000
Michael Kooper	WC-129	56,250
Julie A. Gegner	WC-130	750
Hans Gaverstroem	WC-131	14,980
X Mark Fund LP	WC-132	75,000
X Mark Fund Ltd.	WC-133	150,000
Richard Melnick	WC-134	56,250
Richard P. and Carolyn M. Burgoon	WC-135	1,500
Michael Kooper	WC-136	17,969
SDS Merchant Fund, LP	WC-137	187,500
Katherine Ashforth Wiener	WC-138	15,000
Andrew J. Maffey	WC-139	30,000
Clifford Ross	WC-140	15,000
Robert Wexler	WC-141	7,500
Richard Melnick	WC-142	45,000
Caroline A. Levine	WC-143	11,250
Lawrence Levine	WC-144	3,750
Eric T. Singer	WC-145	30,000
Global eMedicine	WC-146	37,500
Burnham Hill Holdings, LLC	WC-147	30,000
Jim Simpson	WC-148	7,500
Richard & Ricki Hoffman	WC-149	15,000
Jason Adelman	WC-154	20,046
Mathew Balk	WC-155	12,231
Richard Melnick	WC-150	33,750
Richard Melnick	WC-151	50,000
Craig Pierson	WC-152	50,000
Eric Singer	WC-156	5,572
Rob Nathan	WC-157	5,573
Jonathan Balk	WC-165	32,250
Rob Nathan*	WC-200	12,231

* The Warrant to Purchase Common Stock issued to Rob Nathan was issued October 3, 2003.

STOCK SUBSCRIPTION AGREEMENT

ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100

San Diego, CA 92131

This letter represents an agreement (this "AGREEMENT") between the undersigned (the "INVESTOR") and ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), related to the Investor's offer to purchase shares of the Company's Common Stock, par value \$0.001 per share ("COMMON STOCK").

1. SUBSCRIPTION. Subject to the terms and conditions hereof, the Investor hereby irrevocably subscribes for and agrees to purchase shares of Common Stock (the "SUBSCRIPTION") as follows:

Investor's name: [SEE ATTACHED SCHEDULE]

(Exact name as it should appear on the stock certificate.)

Price per share of Common Stock (the "PURCHASE PRICE"): One Dollar (\$1.00)

Number of shares of Common Stock: [SEE ATTACHED SCHEDULE]

Total Purchase Price: [SEE ATTACHED SCHEDULE]

In consideration of the issuance of the number of shares of Common Stock listed above (the "SHARES"), the Investor tenders herewith a wire transfer to the account of the Company transmitted pursuant to the wire instructions attached hereto as Exhibit A in the aggregate amount of the Total Purchase Price listed above.

2. ACCEPTANCE OF SUBSCRIPTION. The Investor understands and agrees that this Subscription is made subject to the unconditional right of the Company to reject this Subscription, in whole or in part, in its sole and absolute discretion. This Agreement shall become effective upon acceptance by the Company (the "ACCEPTANCE Date"). Any interest earned on funds sent to the Company pursuant to Section 1 hereof will be for the account of the Company if the Subscription is accepted. This Subscription is made subject to the terms and conditions set forth below.

3. REPRESENTATIONS AND WARRANTIES OF THE INVESTOR.

(A) EXEMPT TRANSACTION; UNREGISTERED SHARES. The Investor understands that the Shares are being offered and sold under one or more exemptions from registration provided for under the Securities Act of 1933, as amended (the "SECURITIES ACT"), and that the Company's reliance upon such exemptions is predicated, in part, upon the Investor's representations and warranties set forth in this Agreement. The Investor acknowledges that it is purchasing the Shares without being offered or furnished any offering literature or prospectus. The Investor understands that neither the United States Securities and Exchange Commission, nor any governmental agency charged with the administration of the securities laws of any state nor any other governmental agency has passed upon or reviewed the merits or qualifications of, or recommended or approved the offer and sale of the Shares pursuant to the terms of this Agreement.

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(B) INVESTMENT INTENT; ACCREDITATION; AUTHORITY. The Investor is acquiring the Shares for investment for the Investor's own account, not as nominee or agent, for investment and not with a view to, or for resale in connection with, any distribution or public offering thereof within the meaning of the Securities Act. The Investor is an "accredited investor" within the meaning of the Securities Act. The Investor has the full right, power, authority and capacity to enter into and perform this Agreement, the terms of this Agreement constitute valid and binding obligations of the Investor enforceable in accordance with their terms, except as the same may be limited by equitable principles and by bankruptcy, insolvency, moratorium, and other laws of general application affecting the enforcement of creditors' rights.

(C) KNOWLEDGE AND EXPERIENCE. The Investor (i) has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of the Investor's prospective investment in the Shares; (ii) has the ability to bear the economic risks of the Investor's prospective investment; (iii) has been furnished with and has had access to such information as the Investor has considered necessary to make a determination as to the purchase of the Shares together with such additional information as is necessary to verify the accuracy of the information supplied; and (iv) has had all questions which have been asked by Investor satisfactorily answered by the Company.

(D) RESTRICTED SECURITIES. The Investor understands that the Shares are "restricted securities" as such term is defined in Rule 144 of Regulation D promulgated under the Securities Act ("RULE 144") and must be held indefinitely unless they are subsequently registered under applicable state and federal Securities laws or an exemption from such registration is available. The Investor understands that he, she or it may resell the Shares pursuant to Rule 144 only after the satisfaction of certain requirements, including the requirement that the Shares be held for at least one year prior to resale.

(E) NO OBLIGATION TO REGISTER SHARES. The Investor further acknowledges

and understands that, except as provided in Section 7 of this Agreement, the Company is under no obligation to register the Shares. The Investor understands that the certificate evidencing the Shares will be imprinted with a legend which prohibits the transfer of the Shares unless they are registered or such registration is not required in the opinion of counsel for the Company.

(F) INVESTOR QUESTIONNAIRE. The Investor agrees to complete, execute and deliver to the Company with this executed Agreement a copy of the Investor Suitability Questionnaire attached hereto as Exhibit B, the terms of which are incorporated herein.

(G) FOREIGN INVESTOR REPRESENTATION. If the Investor is not a "U.S. person" (as such term is defined in Rule 902(k) of Regulation S promulgated under the Securities Act), such Investor hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Shares or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the Shares. Such Investor's subscription and payment for, and its continued beneficial ownership of the Shares, will not violate any applicable securities or other laws of its jurisdiction.

(H) DOMICILE. The Investor is a bona fide resident and domiciliary (not a temporary or transient resident) of the state indicated on Exhibit B hereto and he, she or it has no present intention of becoming a resident of any other state or jurisdiction.

(I) NO NEED FOR LIQUIDITY. The Investor's aggregate holding of securities that are "restricted securities" or otherwise not readily marketable is not excessive in view of the Investor's net worth and financial circumstances and the purchase of the Shares will not cause such commitment to become excessive.

(J) INDEPENDENT ADVICE. The Investor understands that the Company urges the Investor to seek independent advice from professional advisors relating to the suitability for the Investor of an investment in the Company in view of the Investor's overall financial needs and with respect to legal and tax implications of such an investment.

4. RELIANCE. The Investor understands that the Company may rely on the foregoing representations and warranties in determining whether to accept this Subscription. If for any reason any representations and warranties are no longer true and accurate prior to the Acceptance Date, the Investor will give the Company prompt written notice of the inaccuracy. By signing below, the Investor represents that the Investor has read and confirmed the truth and accuracy of each of the foregoing representations and warranties.

5. INDEMNIFICATION. The Investor agrees to indemnify and hold harmless the Company and each of its directors, officers, agents and affiliates from and against any and all loss, damage or liability due to or arising out of a breach of any representation, warranty or covenant of the undersigned contained in this Agreement.

6. RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(A) LEGEND. The stock certificate representing the Shares shall bear the following legend or similar legend (as well as any legends required by applicable state and federal corporate and securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

(B) REMOVAL OF LEGEND AND TRANSFER RESTRICTIONS. Any legend endorsed on a certificate pursuant to this Section 6 and the stop transfer instructions with respect to such legended Shares shall be removed, and the Company shall issue a certificate without such legend to the holder of such Shares if such Shares are registered under the Securities Act, and a prospectus meeting the requirements of Section 10 of the Securities Act is available or if such holder satisfies the requirements of Rule 144(k) or if such holder provides the Company with an opinion of counsel for such holder of the Securities, reasonably satisfactory to the Company, to the effect that a sale, transfer or assignment of such Shares may be made without registration.

7. REGISTRATION RIGHTS.

(A) PIGGY-BACK RIGHTS. If (but without any obligation to do so) the Company proposes to register any of shares of Common Stock in connection with any offering of shares of Common Stock solely for cash pursuant to a registration statement under the Securities Act, other than a registration solely in connection with a transaction under Rule 145 promulgated under the Securities Act (a "PUBLIC OFFERING"), the Company shall promptly give the Investor written notice of such registration, at least 10 business days prior to the filing of any registration statement under the Securities Act. Upon the written request of the Investor given within 5 business days after delivery of such written notice by the Company, the Company shall, subject to the provisions of Section 7(b) below, use its best efforts to cause to be registered under the Securities Act all of the Shares that the Investor has requested to be registered.

(B) UNDERWRITING. If the registration statement under which the Company gives notice under this Section 7 is for an underwritten Public Offering, the Company shall so advise the Investor. The right of the Investor to registration pursuant to Section 7(a) above shall be conditioned upon the Investor's participation in such underwriting and the inclusion of the Shares in the underwriting to the extent provided herein. The Investor shall (together with the Company and any other holders of Company securities distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for underwriting by the Company. Notwithstanding any other provision of this Section 7, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may exclude some or all of the Shares from such registration and underwriting.

(C) FURNISH INFORMATION. It shall be a condition to the Company's obligations to take any action under this Section 7 that the Investor shall furnish to the Company such information regarding itself, the Shares, and the intended method of disposition of such securities as shall be required to effect the registration of their Shares. In that connection, each selling Investor shall be required to represent to the Company that all such information which is given is both complete and accurate in all material respects when made.

(D) DELAY OF REGISTRATION. The Investor shall have no right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 7.

(E) TERMINATION OF REGISTRATION RIGHTS. The Company shall have no obligation to register the Shares pursuant to this Section 7 with respect to any request or requests made by any Investor on or after that date which is one year after the Acceptance Date.

8. PRICE PROTECTION. If at any time after the Acceptance Date and before the date that is one year after the Acceptance Date, the Company issues or sells any shares of its Common Stock (other than Excluded Shares (as that term is defined below)) for a consideration per share (the "DILUTIVE PRICE") less than the Purchase Price, then the Company will issue to the Investor a number of shares, if positive, of Common Stock determined by the following formula:

$$X = (A / B) - (C + D)$$

Where:

- X = the number of shares of Common Stock to be issued to the Investor, rounded to the nearest whole number;
- A = the Total Purchase Price;
- B = the Dilutive Price;
- C = the number of Shares held by the Investor; and
- D = the aggregate number of shares of Common Stock issued to the Investor pursuant to this Section 8 prior to the date of such determination.

Notwithstanding the foregoing, in no event will the Company be obligated to issue to the Investor in the aggregate a number of shares of Common Stock pursuant to this Section 8 in excess of the number determined by the following formula:

$$X = (A / B) - C$$

Where:

- X = the maximum aggregate number of shares of Common Stock issuable to the Investor pursuant to Section 8, rounded to the nearest whole number;
- A = the Total Purchase Price;
- B = Fifty Cents (\$0.50); and
- C = the number of Shares initially purchased by the Investor pursuant to the terms of this Agreement.

For purposes of this Agreement, the term "EXCLUDED SHARES" means: (i) shares of Common Stock issuable or issued after the Acceptance Date to officers, employees, consultants or directors of the Company directly or pursuant to a stock purchase, stock option, restricted stock or other written compensation plan or agreement approved by the Board of Directors of the Company (the "BOARD"); (ii) shares of Common Stock issued or issuable after the Acceptance Date, primarily for non-equity financing purposes and as approved by the Board, to financial institutions or lessors in connection with commercial credit arrangements, equipment financings or similar transactions or to vendors of goods or services or customers; (iii) shares of Common Stock issuable upon (a) exercise of outstanding warrants, options, notes or other rights to acquire securities of the Company, (b) conversion of outstanding shares of the Company's Preferred Stock, par value \$0.01 per share or (c) exchange of outstanding promissory notes issued by the Company; (iv) capital stock or warrants or options to purchase capital stock issued in connection with bona fide acquisitions, mergers or similar transactions, the terms of which are approved by the Board; or (v) shares of Common Stock issued or issuable by way of dividend or other distribution on Excluded Shares.

9. MISCELLANEOUS.

(A) GOVERNING LAW. This Agreement, all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the state of California, without giving effect to principles of choice of law.

(B) JURISDICTION AND VENUE. Any legal action or other legal proceeding relating to this Agreement or the enforcement of any provision of this Agreement shall be brought or otherwise commenced in any state or federal court located in the county of San Diego, California. Each party to this Agreement: (i) expressly and irrevocably consents and submits to the jurisdiction of each state and federal court located in the county of San Diego, California and each appellate court located in the state of California, in connection with any such legal proceeding; (ii) agrees that each state and federal court located in the county of San Diego, California shall be deemed to be a convenient forum; and (iii) agrees not to assert, by way of motion, as a defense or otherwise, in any such legal proceeding commenced in any state or federal court located in the county of San Diego, California any claim that such party is not subject personally to the jurisdiction of such court, that such legal proceeding has been brought in an inconvenient forum, that the venue of such proceeding is improper or that this Agreement or the subject matter of this Agreement may not be enforced in or by such court.

(C) ENTIRE AGREEMENT. This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

(D) NOTICES. All notices and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in person or facsimile transmission (received at the facsimile machine to which it is transmitted prior to 5:00 p.m., local time, on a business day in the state of California, for the party to which it is sent), by courier or express delivery service or by registered or certified mail (postage prepaid, return receipt requested) to the respective parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this Section):

if to the Company: ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131
Attention: Nicholas J. Virca
Facsimile: (858) 271-9678

with a copy to (not to constitute notice): Bingham McCutchen LLP
3 Embarcadero Center
San Francisco, CA 94111-4067
Attention: Francis W. Sarena
Facsimile: (415) 393-2286

if to the Investor: To the address set forth in
Exhibit B hereto.

(E) MODIFICATIONS AND AMENDMENTS. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the parties hereto.

(F) WAIVERS AND CONSENTS. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

(G) ASSIGNMENT. This Agreement may not be transferred or assigned without the prior written consent of the Company and any such transfer or assignment shall be made only in accordance with applicable laws and any such consent.

(H) SEVERABILITY. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Agreement shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions of this Agreement shall nevertheless remain in full force and effect.

(I) INTERPRETATION. The parties hereto acknowledge and agree that: (i) each party and such party's counsel has reviewed the terms and provisions of this Agreement; (ii) the rule of construction to the effect that any ambiguities are resolved against the drafting party shall not be employed in the interpretation of this Agreement; and (iii) the terms and provisions of this Agreement shall be construed fairly as to the parties hereto and not in favor of or against any party, regardless of which party was generally responsible for the preparation of this Agreement. Whenever used herein, the singular number shall include the plural, the plural shall include the singular, the use of any gender shall include all persons.

(J) HEADINGS AND CAPTIONS. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and shall in no way modify, or affect the meaning or construction of any of the terms or provisions hereof.

(K) NO WAIVER OF RIGHTS, POWERS AND REMEDIES. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

(L) SURVIVAL OF REPRESENTATIONS AND WARRANTIES. All representations and warranties made by the parties hereto in this Agreement, shall survive (i) the execution and delivery hereof, (ii) any investigations made by or on behalf of the parties and (iii) the closing of the transaction contemplated hereby.

(M) EXPENSES. Each of the parties hereto shall pay its own fees and expenses (including the fees of any attorneys, accountants, appraisers or others engaged by such party) in connection with this Agreement and the transactions contemplated hereby whether or not the transactions contemplated hereby are consummated.

(N) FACSIMILE DELIVERY. Any signature page delivered by electronic facsimile shall be binding to the same extent as an original signature page, with regard to any agreement subject to the terms hereof or any amendment thereto. Any party who delivers such a signature page agrees to later deliver an original counterpart to the other party upon request.

IN WITNESS WHEREOF, the undersigned has executed this Agreement this ___ day of _____, 2003.

INVESTOR:

By: [SEE ATTACHED SCHEDULE]

(signature)

Name: _____
(please print)

Title: _____
(if applicable)

ADVENTRX Pharmaceuticals, Inc. hereby accepts the foregoing Subscription subject to the terms and conditions hereof as of _____, 2003

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Nicholas J. Virca, Chief Executive Officer

EXHIBIT A

WIRE INSTRUCTIONS

The following information is provided to assist you in routing wire transfers TO the account of ADVENTRX Pharmaceuticals, Inc. at Silicon Valley Bank in the most expeditious manner.

For all incoming FOREIGN CURRENCY wires, please contact Silicon Valley Bank's INTERNATIONAL DEPARTMENT AT (408) 654-7774 for settlement instructions.

DOMESTIC WIRE TRANSFER:

Instruct the paying financial institution or the payor to route all domestic wire transfers via FEDWIRE to the following ABA number:

TO: SIL VLY BK SJ
ROUTING & TRANSIT #: 121140399
FOR CREDIT OF: ADVENTRX Pharmaceuticals, Inc.
CREDIT ACCOUNT #: 3300340922
BY ORDER OF: [NAME OF SENDER]

INTERNATIONAL WIRE TRANSFER:

Instruct the paying financial institution to advise their U.S. correspondent to pay as follows:

PAY TO: FC - SILICON VALLEY BANK
3003 TASMAN DRIVE
SANTA CLARA, CA 95054, USA
ROUTING & TRANSIT #: \\\FW121140399
SWIFT CODE: SVBKUS6S
FOR CREDIT OF: ADVENTRX Pharmaceuticals, Inc.
FINAL CREDIT ACCOUNT #: FNC - 3300340922
BY ORDER OF: [NAME OF SENDER]

IMPORTANT!!!!

Wire instructions MUST designate the FULL TEN DIGIT ACCOUNT NUMBER listed above. Wires received by Silicon Valley Bank with INCOMPLETE or INVALID ACCOUNT NUMBERS may be delayed and could possibly require return to the sending bank due to new regulations.

EXHIBIT B

INVESTOR SUITABILITY QUESTIONNAIRE

ADVENTRX PHARMACEUTICALS, INC. (THE "COMPANY")
(All information will be treated confidentially)

I. INDIVIDUAL INVESTORS ONLY

A. PERSONAL INFORMATION

Name: _____
(Exact name as it should appear on stock certificate.)

Residence Address: _____

Home Telephone Number: _____

Fax Telephone Number: _____

Email Address: _____

Social Security Number: _____

B. DELIVERY INFORMATION (Applicable only if different than residence.)

Name of Institution or Destination: _____

Contact Name: _____

Delivery Address: _____

Account Reference (if applicable): _____

Contact Telephone Number: _____

Contact Fax Telephone Number: _____

Contact Email Address: _____

C. EMPLOYMENT INFORMATION

Occupation: _____

Number of Years: _____

Present Employer: _____

Position/Title: _____

Business Address: _____

Business Telephone: _____

D. RESIDENT INFORMATION

Set forth in the space provided below the state(s)/country(ies) in which you have maintained your principal residence during the past three years and the date during which you resided in each state/country.

Are you registered to vote in, or do you have a driver's license issued by, or do you maintain a residence in any other state? If yes, in which state(s)?

Yes _____

No _____

E. INCOME

Do you reasonably expect either your own income from all sources during the current year to exceed \$200,000 or the joint income of you and your spouse (if married) from all sources during the current year to exceed \$300,000?

Yes _____

No _____

If not, please specify the amount:

What percentage of your income as shown above is anticipated to be derived from sources other than salary?

Was either your yearly income from all sources during each of the last two years in excess of \$200,000 or was the joint income of you and your spouse (if married) from all sources during each of such years in excess of \$300,000?

Yes _____ No _____

If no, please specify the amount for:

Last Year: _____

Year Before Last: _____

F. NET WORTH

Will your net worth* as of the date you purchase securities of the Company, together with the net worth of your spouse, be in excess of \$1,000,000?

Yes _____ No _____

If not, please specify amount:

* As used in this questionnaire the term "net worth" means the amount by which total assets exceed total liabilities. In computing net worth for purposes of this Item 5, you should value your principal residence at cost, including cost of improvements, or at that value recently appraised by an institutional lender making a secured loan or otherwise by a certified appraiser, net of encumbrances.

G. EDUCATION

Please describe your educational background and degrees obtained, if any.

H. AFFILIATION

If you have any pre-existing personal or business relationship with the Company or any of its officers, directors or controlling persons, please describe the nature and duration of such relationship.

I. BUSINESS AND FINANCIAL EXPERIENCE

Please describe in reasonable detail the nature and extent of your business, financial and investment experience which you believe give you the capacity to evaluate the merits and risks of the proposed investment and the capacity to protect your interests.

Are you purchasing the securities offered for your own account and for investment purposes only?

Yes _____

No _____

If no, please state for whom you are investing and/or the reason for investing.

II. ENTITY INVESTORS ONLY

A. ENTITY NAME AND CONTACT INFORMATION

Name: _____
(Exact name as it should appear on stock certificate.)

Name of Institution or Destination: _____
(Include if different from stock certificate.)

Address: _____

Account Reference (if applicable): _____

Tax Identification Number (if applicable): _____

Contact Name: _____

Contact Telephone Number: _____

Contact Fax Number: _____

Contact Email Address: _____

B. GENERAL INFORMATION

Under the laws of what jurisdiction was the Investor formed? _____

Was the Investor formed for the purpose of investing in the securities being offered?

Yes _____ No _____

Set forth in the space provided below the (i) state(s), if any, in the United States in which you maintained your principal office during the past two years and the dates during which you maintained your office in each state, (ii) the state(s), if any, in which you are incorporated or otherwise organized, and (iii) the state(s), if any, in which you still pay income taxes:

C. ACCREDITED INVESTOR INFORMATION

Is the Investor a national bank or a banking institution organized under the laws of any state or any territory of the United States or the District of Columbia?

Yes _____ No _____

Is the Investor a savings and loan association, building and loan association, cooperative bank, homestead association, or similar institution, which is supervised and examined by any state or federal authority having supervision over such institution?

Yes _____ No _____

Is the Investor a broker or dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934?

Yes _____ No _____

Is the Investor a company (i) whose primary and predominant business is underwriting insurance and subject to the supervision by a regulatory agency under the laws of any state or territory, or (ii) registered as an investment company under the Investment Company Act of 1940, or (iii) a Small Business Investment Company licensed by the U.S. Small Business Administration?

Yes _____ No _____

Is the Investor a "business development company" within the meaning of the Investment Company Act of 1940 or the Investment Advisers Act of 1940?

Yes _____ No _____

Is the Investor an employee benefit plan under the Employee Retirement Income Security Act of 1974 (a "PLAN") with assets in excess of \$5,000,000?

Yes _____ No _____

If the Investor is such a Plan, but if the Plan's total assets do not exceed \$5,000,000, are investment decisions for the Plan made by a bank, savings and loan association, insurance company or registered investment adviser acting as fiduciary? (If yes, please specify the name of the fiduciary.)

Yes _____ No _____

Name of Fiduciary: _____

If the Investor is a self-directed Plan, but if the Plan's total assets do not exceed \$5,000,000, are investment decisions made solely by persons or entities that can answer yes to one or more of the questions under paragraphs (b) - (e) of Item 1, or (c) - (k) under this Item 2? (If yes, please specify the applicable Item and Paragraph.)

Yes _____ No _____

Item and Paragraph: _____

Is the Investor (A)(i) a tax exempt organization which is qualified under Section 501(c)(3) of the Internal Revenue Code of 1986 as amended, or (ii) a corporation, or (iii) a Massachusetts or similar business trust, or (iv) a partnership, not formed for the specific purpose of acquiring the securities offered, and (B) which has assets in excess of \$5,000,000?

Yes _____ No _____

Is the Investor a trust, with total assets in excess of \$5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment?

Yes _____ No _____

If yes, please attach a memorandum describing such person's educational background, professional memberships or licenses, current employment, principal business and professional activities during the last five years, and experience as an investor in securities. Include any additional information evidencing that such person has sufficient knowledge and experience in financial matters that such person would be capable of evaluating the merits and risks of investing in the securities being offered.

Is the Investor an entity in which all of the equity owners are persons who are either (i) entities described in paragraphs (c) through (j) above; (ii) persons whose net worth, or joint net worth with their spouses, exceeds \$1,000,000; (iii) persons whose income without regard to that of their spouses exceeded \$200,000, or whose joint income with their spouses exceeded \$300,000, in each of the last two years and who reasonably expect such person income to exceed \$200,000 or such joint income to exceed \$300,000 this year; or (iv) persons who are brokers or dealers registered pursuant to Section 15 of the Securities Exchange Act of 1934?

Yes _____ No _____

If an equity owner is an entity described in paragraphs (h) or (j) under this Item 3, please provide the information required by such paragraph.

The above information has been requested by the Company and will be used solely to confirm that the Company is complying with certain securities regulations. In furnishing the above information, the undersigned acknowledges that the Company will be relying thereon in assessing the requirements of the Securities Act of 1933, as amended, and other applicable securities laws.

The information contained in this questionnaire is true and complete, and the undersigned understands that the Company and its counsel will rely on such information for the purpose of complying with all applicable securities laws, as discussed above. The undersigned agrees to notify the Company promptly of any change in the foregoing information which may occur prior to any purchase by the undersigned of stock from the Company.

Date: _____

INDIVIDUAL INVESTOR:

By: [SEE ATTACHED SCHEDULE]
(signature)

Name: _____
(please print)

ENTITY INVESTOR:

By: [SEE ATTACHED SCHEDULE]
(signature)

Name: _____
(please print)

Title: _____
(please print)

SCHEDULE OF INVESTORS

ADVENTRX Pharmaceuticals, Inc. entered into this form of Stock Subscription Agreement with each of the persons listed below on the dates set forth below for the purchase of the number of shares of Common Stock listed opposite such person's name below.

INVESTOR	DATE	SHARES
Peter J. and Elaine Chortek, Trustees of the Peter J. and Elaine Chortek Restarted Family Trust, Dated January 24, 1994 as Amended and restarted	7/14/2003	50,000
John R. and Marjorie B. Brown	7/15/2003	2,000
David and Jennifer Brown	7/15/2003	500
Elaine Dines	8/6/2003	50,000
Dannie King	8/6/2003	25,000
Craig Langweiler	8/7/2003	3,000
Benjamin Partners Savings Plan FBO Jeffrey Benison	8/8/2003	50,000
Robert A. Melnick	8/8/2003	50,000
Emanuel Peluso	8/8/2003	10,000
Sandi Yurichuk	8/9/2003	25,000
William B. Newman	8/10/2003	50,000
Clariden Investments Ltd.	9/12/2003	50,000
Mark Eugene Reaman	9/26/2003	25,000
Jurg Fluck	8/11/2003	9,000
Haywood Securities Inc in Trust for Bridge Finance Ltd.	8/11/2003	50,000
Roland Hartman	8/11/2003	20,000
David W. Penney & Sarah B. McAllister	8/12/2003	10,000
Schroder & Co Bank AG	8/12/2003	150,000
James Ladner	8/13/2003	10,000
Deborah Young, M.D. APC Employees Retirement Trust Y/A DTD 4/2/91	8/14/2003	10,000
BSI-New Biomedical Frontier (Sicav)	8/14/2003	500,000
Paul Mezei	8/15/2003	2,000
Michael Kooper	8/16/2003	50,000
John J. Kissane	8/18/2003	10,000
Michael Elconin	8/19/2003	10,000
Ball Family Trust (Edward D. Ball and Susan E. Ball, Trustees)	8/19/2003	100,000
Brian M. Herman	8/19/2003	25,000
Sean M. Callahan	8/20/2003	15,000
Mark A. Ford	8/22/2003	10,000
Robert J. Neborsky, MD, Inc. Combination Retirement Trust U/T/A 11/30/82	8/22/2003	125,000
Michael M. Goldberg	8/22/2003	20,000
SDS Merchant Fund, L.P.	8/25/2003	250,000

INVESTOR	DATE	SHARES
Bullbear Capital Partners, LLC	8/25/2003	125,000
Jeff Hermanson	8/26/2003	25,000
Deborah Melnick	8/28/2003	10,000
Jay S. and Gabrielle Kunin	8/28/2003	15,000
Charles and Leslie Close	8/29/2003	50,000
Eric T. Singer	9/2/2003	50,000
Botka-Liu Family Revocable Trust, Dated 8/10/2000	9/3/2003	20,000
Gene Salkind, MD	9/3/2003	50,000
Marital Trust GST Subject U/T/W of Leopold Salkind DTD 10/29/02, Marilyn Salkind, Gene Salkind, Trustees	9/4/2003	25,000
Peter Levitch	9/5/2003	50,000
Steven R. Salovitch	9/5/2003	10,000
Lisa Rachlin	9/6/2003	500
Schenk Family Trust/Carl Schenk Trustee	9/7/2003	25,000
Chicago Private Investments, Inc.	9/7/2003	50,000
Kanter Family Foundation	9/12/2003	50,000
Alan Sheinwald	9/15/2003	15,000
Jay Silberman	9/15/2003	75,000
David Wiener Revocable Trust -96	9/15/2003	100,000
Larry R. Rice	9/16/2003	50,000
Joseph Reynolds	9/17/2003	50,000
HSB Capital	9/18/2003	25,000
Andrew J. Maffey	9/19/2003	25,000
Hans Gaverstroem	9/19/2003	20,000
Angeliki Frangou	10/3/2003	50,000
Global eMedicine, Inc., MPPP	10/5/2003	50,000
Anasazi Partners II, LLC	10/13/2003	100,000
Anasazi Partners III LLC	10/21/2003	250,000
Christopher P. Baker	11/13/2003	250,000

THIS WARRANT HAS BEEN, AND THE SHARES OF COMMON STOCK WHICH MAY BE RECEIVED PURSUANT TO THE EXERCISE OF THIS WARRANT WILL BE, ACQUIRED SOLELY FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF. NEITHER THIS WARRANT NOR SUCH SHARES (TOGETHER, THE "SECURITIES") HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH DISPOSITION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT AND OF ANY APPLICABLE STATE SECURITIES LAWS.

NO. WC- ISSUED [SEE ATTACHED SCHEDULE]

WARRANT TO PURCHASE COMMON STOCK

THIS CERTIFIES THAT, for good and valuable consideration, [SEE ATTACHED SCHEDULE FOR NAMES OF HOLDERS] (the "HOLDER") is entitled to subscribe for and purchase from Adventrx Pharmaceuticals, Inc., a Delaware corporation (the "COMPANY"), [SEE ATTACHED SCHEDULE FOR NUMBER OF SHARES] fully paid and nonassessable shares of Common Stock, par value \$0.001 per share ("COMMON STOCK"), of the Company (as adjusted pursuant to Section 3 hereof) (the "WARRANT SHARES") at a price per share equal to One Dollar and Twenty Five Cents (\$1.25) (as adjusted pursuant to Section 3 hereof) (the "EXERCISE PRICE"), subject to the provisions and upon the terms and conditions hereinafter set forth.

1. METHOD OF EXERCISE; PAYMENT.

(A) Exercise Period. The purchase rights represented by this Warrant may be exercised by the Holder during the term of this Warrant (as set forth in Section 9 hereof) in whole or in part, at any time after the Commencement Date, as defined below, by the surrender of this Warrant (with the notice of exercise form attached hereto as Exhibit A (the "NOTICE OF EXERCISE") duly executed) at the principal office of the Company.

(B) Cash Exercise. Upon exercise of this Warrant, the Holder shall pay the Company an amount equal to the Exercise Price multiplied by the number of Warrant Shares being purchased, by wire transfer or certified check payable to the order of the Company. The person or persons in whose name(s) any certificate(s) representing the Warrant Shares shall be issuable upon exercise of this Warrant shall be deemed to have become the holder(s) of record of, and shall be treated for all purposes as the record holder(s) of, the Warrant Shares represented thereby (and such Warrant Shares shall be deemed to have been issued) immediately prior to the close of business on the date or dates upon which this Warrant is exercised.

1

(C) Stock Certificates. In the event of any exercise of the rights represented by this Warrant, certificates for the Warrant Shares so purchased shall be delivered to the Holder within a reasonable time after exercise and, unless this Warrant has been fully exercised or has expired, a new Warrant representing the shares with respect to which this Warrant shall not have been exercised shall also be issued to the Holder within such time.

2. STOCK FULLY PAID; RESERVATION OF SHARES. All of the Warrant Shares issuable upon the exercise of the rights represented by this Warrant will, upon issuance and receipt of the Exercise Price therefor, be fully paid and nonassessable, and free from all preemptive rights, rights of first refusal or first offer, taxes, liens and charges with respect to the issuance thereof. During the period within which the rights represented by this Warrant may be exercised, the Company shall at all times have authorized and reserved for issuance a sufficient number of Warrant Shares to provide for the exercise of the rights represented by this Warrant.

3. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF SHARES. The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price therefor shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(A) Reclassification, Consolidation or Reorganization. In case of any reclassification of the Common Stock (other than a change in par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation (other than a Change of Control, as defined below) (any of which is a "REORGANIZATION TRANSACTION"), the Company, or such successor corporation as the case may be, shall execute a new warrant, providing that the holder of this Warrant shall have the right to exercise such new warrant, and procure upon such exercise and payment of the same aggregate Exercise Price, in lieu of the Warrant Shares theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other securities, money and property as would be payable for the Warrant Shares issuable upon exercise of this Warrant as if such Warrant Shares were outstanding on the consummation of the Reorganization Transaction. For purposes of this Warrant, the term "CHANGE OF CONTROL" shall mean (i) any acquisition of the Company by means of merger, acquisition, or other form of corporate reorganization in which outstanding shares of the Company are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary or parent (other than a reincorporation transaction or change of domicile) and pursuant to which the holders of the outstanding voting securities of the Company immediately prior to such consolidation, merger or other transaction fail to hold equity securities

representing a majority of the voting power of the Company or surviving entity immediately following such consolidation, merger or other transaction (excluding voting securities of the acquiring corporation held by such holders prior to such transaction) or (ii) a sale of all or substantially all of the assets of the Company.

(B) Stock Splits, Dividends and Combinations. In the event that the Company shall at any time subdivide the outstanding shares of Common Stock, or shall issue a stock dividend on its outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such subdivision or to the issuance of such stock dividend shall be proportionately increased, and the Exercise Price shall be proportionately decreased, and in the event that the Company shall at any time combine the outstanding shares of Common Stock, the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to such combination shall be proportionately decreased, and the Exercise Price shall be proportionately increased, effective at the close of business on the date of such subdivision, stock dividend or combination, as the case may be.

4. TRANSFER OF WARRANT. This Warrant may only be transferred in compliance with federal and state securities laws and, except as provided below, may not be transferred except with the prior written consent of the Company, which shall not be unreasonably withheld or delayed, and any purported transfer without such prior written consent shall be null and void; provided, however, that the Company may withhold its consent to transfer or assignment of this Warrant to any person or entity who is deemed to be a competitor or prospective competitor of the Company, such determination to be made in the reasonable judgment of the Board.

5. CONDITION TO EXERCISE OF WARRANT. Each certificate evidencing the Warrant Shares issued upon exercise of this Warrant shall be stamped or imprinted with a legend substantially in the following form:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF, AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR UNLESS SOLD PURSUANT TO RULE 144 OF SUCH ACT.

6. FRACTIONAL SHARES. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

7. REPRESENTATIONS AND WARRANTIES BY THE HOLDER. The Holder represents and warrants to the Company as follows:

(A) This Warrant is being acquired for the Holder's own account, for investment and not with a view to, or for resale in connection with, any distribution or public offering thereof within the meaning of the Securities Act of 1933, as amended (the "SECURITIES ACT"). Upon exercise of this Warrant, the Holder shall, if so requested by the Company, confirm in writing, in a form reasonably satisfactory to the Company, that the Warrant Shares issuable upon exercise of this Warrant are being acquired for investment and not with a view toward distribution or resale. The Holder is an "accredited investor" within the meaning of the Securities Act.

(B) The Holder understands that this Warrant and the Warrant Shares have not been registered under the Securities Act by reason of their issuance in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act pursuant to Section 4(2) thereof and that the Company's reliance upon such exemption is predicated, in part, upon the Holder's representations and warranties set forth in this Agreement. The Holder understands that this Warrant and the Warrant Shares must be held by the Holder indefinitely, and that the Holder must therefore bear the economic risk of such investment indefinitely, unless a subsequent disposition thereof is registered under the Securities Act or is exempted from such registration. The Holder further understands that this Warrant and the Warrant Shares have not been registered under the securities laws of any state.

(C) The Holder acknowledges that it is acquiring this Warrant without being offered or furnished any offering literature or prospectus. The Holder understands that neither the United States Securities and Exchange Commission, nor any governmental agency charged with the administration of the securities laws of any state nor any other governmental agency has passed upon or reviewed the merits or qualifications of, or recommended or approved the issuance of this Warrant or the Warrant Shares.

(D) The Holder understands that, except as provided in Section 10 of this Warrant, the Company is under no obligation to register this Warrant or the Warrant Shares.

(E) The Holder is a bona fide resident and domiciliary (not a temporary or transient resident) of the state indicated in the signature page hereto and the Holder has no present intention of becoming a resident of any other state or jurisdiction.

(F) The Holder has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the purchase of this Warrant and the Warrant Shares purchasable pursuant to the terms of this Warrant and of protecting its interests in connection therewith. The Holder is able to bear the economic risk of the purchase of the Warrant Shares pursuant to the terms of this Warrant.

(G) The Holder of this Warrant agrees not to undertake any short position with respect to the underlying common stock while this warrant remains outstanding.

8. RIGHTS OF STOCKHOLDERS. No holder of this Warrant shall be entitled, as a Warrant holder, to vote or receive dividends or be deemed the holder of Warrant Shares or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise with respect to the Warrant Shares until this Warrant shall have been exercised and the Warrant Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

9. TERM OF WARRANT.

(A) This warrant shall become exercisable on the date of issuance set forth below (the "COMMENCEMENT DATE") and shall no longer be exercisable as of the earlier of (i) 5:00 p.m., San Diego, California local time, on the date that is the three-year anniversary of the Commencement Date; (ii) immediately prior to a Change of Control and (iii) 5:00 p.m., San Diego, California local time, on the Call Termination Date (as defined below).

(B) Notwithstanding anything herein to the contrary, at any time after the Commencement Date, if the closing price of one share of Common Stock quoted in the over-the-counter market summary, the Bulletin Board Exchange, the Nasdaq National Market or the closing price quoted on a national securities exchange, whichever is applicable, is greater than 200% of the Exercise Price for a period of 20 consecutive trading days, then thereafter the Company shall have the right (the "COMPANY TERMINATION RIGHT"), exercisable at the Company's sole discretion, to terminate this Warrant with at least 10-days' prior written notice (the "TERMINATION NOTICE") which Termination Notice shall state the date this Warrant shall terminate (the "CALL TERMINATION DATE"); provided, however, that the Company may not exercise the Company Termination Right unless a registration statement registering the Warrant Stock has been declared effective and is effective from the date of delivery of the Termination Notice until the Call Termination Date, provided, further, that if this Warrant is terminated pursuant to this Section 9(b), then the Company shall use commercially reasonable efforts to maintain the effectiveness of a registration statement registering the Warrant Stock until the date that is 15 days after the Call Termination Date or, if earlier, the date the Holder shall have sold all its Warrant Shares covered by such registration statement.

10. REGISTRATION RIGHTS.

(A) Piggy-back Rights. If (but without any obligation to do so) the Company proposes to register any shares of Common Stock solely for cash pursuant to a registration statement under the Securities Act, other than a registration solely in connection with a transaction under Rule 145 promulgated under the Securities Act (a "PUBLIC OFFERING"), the Company shall promptly give the Holder written notice of such Public Offering, at least 10 business days prior to the filing of the registration statement under the Securities Act regarding such Public Offering. Upon the written request of the Holder given within 5 business days after delivery of such written notice by the Company, the Company shall, subject to the provisions of Section 10(b) below, use its best efforts to cause to be registered under the Securities Act all of the Warrant Shares that the Holder has requested to be registered.

(B) Underwriting. If the registration statement under which the Company gives notice under this Section 10 is for an underwritten Public Offering, the Company shall so advise the Holder. The right of the Holder to registration pursuant to Section 10(a) above shall be conditioned upon the Holder's participation in such underwriting and the inclusion of the Warrant Shares in the underwriting to the extent provided herein. The Holder shall (together with the Company and any other holders of Company securities distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for underwriting by the Company. Notwithstanding any other provision of this Section 10, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may exclude some or all of the Warrant Shares from such registration and underwriting.

(C) Furnish Information. It shall be a condition to the Company's obligations to take any action under this Section 10 that the Holder shall furnish to the Company such information regarding itself, the Warrant Shares, and the intended method of disposition of such Warrant Shares as shall be required to effect the registration of any Warrant Shares. In that connection, the Holder shall be required to represent to the Company that all such information which is given is both complete and accurate in all material respects when made.

(D) Delay of Registration. The Holder shall have no right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 10.

(E) Termination of Registration Rights. The Company shall have no obligation to register Warrant Shares pursuant to this Section 10 with respect to any request or requests made by any Holder on or after that date which is one year after the date such Warrant Shares were deemed to be acquired for purposes of determining the holding period of such Warrant Shares under Rule 144 of the Act.

11. MISCELLANEOUS.

(A) This Warrant is being delivered in the state of California and shall be construed and enforced in accordance with and governed by the laws of the state of California, without giving effect to principles of conflicts of laws.

(B) The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

(C) The terms of this Warrant shall be binding upon and shall inure to the benefit of any successors or assigns of the Company and of the Holder and of the Warrant Shares issued or issuable upon the exercise hereof.

(D) Any notice provided for or permitted under this Warrant shall be treated as having been given (a) upon receipt, when delivered personally, (b) upon receipt, when sent by confirmed facsimile or telecopy, (c) one day after sending, when sent by commercial overnight courier with written verification of receipt, or (d) three business days after deposit with the United States Postal Service, when mailed postage prepaid by certified or registered mail, return receipt requested, addressed (a) if to the Company, at 9948 Hibert Street, Suite 100, San Diego, CA 92131, facsimile: (858) 271-9678, Attention: Nicholas J. Virca, or (b) if to the Holder, at such address or facsimile number as the Holder shall have furnished to the Company in writing, or at such other place of which the other party has been notified in accordance with the provisions of this Section 11(d).

(E) This Warrant constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof.

(F) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at the Holder's expense will execute and deliver to the holder of record, in lieu thereof, a new Warrant of like date and tenor.

(G) This Warrant and any provision hereof may be amended, waived or terminated only by an instrument in writing signed by the Company and the Holder.

(H) Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to the foregoing terms and conditions.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer.

Issued : [SEE ATTACHED SCHEDULE]

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Nicholas J. Virca

Name: Nicholas J. Virca

Title: President and Chief Executive Officer

[SEE ATTACHED SCHEDULE]

By: _____

Name: _____

Title: _____

Address: _____

Facsimile: _____

EXHIBIT A

NOTICE OF EXERCISE

TO: Adventrx Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, CA 92131

The undersigned hereby elects to purchase _____ shares of Common Stock, par value \$0.001 per share, of the Company ("COMMON STOCK") pursuant to the terms of Section 1(b) of the Warrant to Purchase Common Stock dated _____ 2003 (the "WARRANT"), and tenders herewith payment of the purchase price of such shares in full.

Please issue a certificate or certificates representing said _____ shares of Common Stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

The undersigned hereby represents and warrants that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale, in connection with the distribution thereof, and that the undersigned has no present intention of distributing or reselling such shares, and that all representations and warranties of the undersigned set forth in Section 7 of the Warrant are true and correct as of the date hereof.

By: _____

Name: _____

Title: _____

Date: _____

SCHEDULE OF WARRANTHOLDERS

ADVENTRX Pharmaceuticals, Inc. issued this form of Warrant to Purchase Common Stock to each of the persons listed below on the dates set forth below for the purchase of up to the number of shares of Common Stock listed opposite such person's name below.

HOLDER	WARRANT NO.	ISSUE DATE	SHARES
Ball Family Trust (Edward D. Ball and Susan E. Ball, Trustees)	WC-201	10/15/2003	30,000
Benjamin Partners Savings Plan FBO Jeffrey Benison	WC-202	10/15/2003	15,000
Botka-Liu Family Revocable Trust, Dated 8/10/2000	WC-203	10/15/2003	6,000
David and Jennifer Brown	WC-204	10/15/2003	150
John R. and Marjorie B. Brown	WC-205	10/15/2003	600
BSI-New Biomedical Frontier (Sicav)	WC-206	10/15/2003	150,000
Bullbear Capital Partners, LLC	WC-207	10/15/2003	37,500
Sean M. Callahan	WC-208	10/15/2003	4,500
Peter J. and Elaine Chortek, Trustees of the Peter J. and Elaine Chortek Restarted Family Trust, Dated January 24, 1994 as Amended and restarted	WC-209	10/15/2003	15,000
Charles and Leslie Close	WC-210	10/15/2003	15,000
Chicago Private Investments, Inc.	WC-211	10/15/2003	15,000
Clariden Investments, LTD.	WC-212	10/15/2003	15,000
Deborah Young, M.D. APC Employees Retirement Trust Y/A DTD 4/2/91	WC-213	10/15/2003	3,000
Elaine Dines	WC-214	10/15/2003	15,000
Michael Elconin	WC-215	10/15/2003	3,000
Jurg Fluck	WC-216	10/15/2003	2,700
Mark A. Ford	WC-217	10/15/2003	3,000
Hans Gaverstroem	WC-218	10/15/2003	6,000
Michael M. Goldberg	WC-219	10/15/2003	6,000
Roland Hartmann	WC-220	10/15/2003	6,000
Haywood Securities Inc in Trust for Bridge Finance Ltd.	WC-221	10/15/2003	15,000
Brian M. Herman	WC-222	10/15/2003	7,500
Jeff Hermanson	WC-223	10/15/2003	7,500
Kantor Family Foundation	WC-224	10/15/2003	15,000
Dannie King	WC-225	10/15/2003	7,500
John J. Kissane	WC-226	10/15/2003	3,000
Michael Kooper	WC-227	10/15/2003	15,000
Jay S. and Gabrielle Kunin	WC-228	10/15/2003	4,500
James Ladner	WC-229	10/15/2003	3,000
Craig Langweiler	WC-230	10/15/2003	900
Peter Levitch	WC-231	10/15/2003	15,000
Marital Trust GST Subject U/T/W of Leopold Salkind DTD 10/29/02, Marilyn Salkind, Gene Salkind, Trustees	WC-232	10/15/2003	7,500

David W. Penney & Sarah B. McAllister	WC-233	10/15/2003	3,000
Deborah Melnick	WC-234	10/15/2003	3,000
Robert A. Melnick	WC-235	10/15/2003	15,000
Paul Mezei	WC-236	10/15/2003	600
Robert J. Neborsky, M.D., Inc. Combination Retirement Trust	WC-237	10/15/2003	37,500
William B. Newman	WC-238	10/15/2003	15,000
Emanuel Peluso	WC-239	10/15/2003	3,000
Lisa Rachlin	WC-240	10/15/2003	150
Mark Eugene Reaman	WC-241	10/15/2003	7,500
Joseph Reynolds	WC-242	10/15/2003	15,000
Larry R. Rice	WC-243	10/15/2003	15,000
Gene Salkind, M.D.	WC-244	10/15/2003	15,000
Steven R. Salovitch	WC-245	10/15/2003	3,000
Schenk Family Trust/Carl Schenk Trustee	WC-246	10/15/2003	7,500
Schroder & Co Bank AG	WC-247	10/15/2003	45,000
SDS Merchant Fund, L.P.	WC-248	10/15/2003	75,000
Eugene H. Seymour, M.D.	WC-249	10/15/2003	15,000
Alan Sheinwald	WC-250	10/15/2003	4,500
Jay Silberman	WC-251	10/15/2003	22,500
Eric T. Singer	WC-252	10/15/2003	15,000
David Wiener, Revocable Trust-96	WC-253	10/15/2003	30,000
Sandi Yurichuk	WC-254	10/15/2003	7,500
HSB Capital	WC-255	10/15/2003	7,500
Andrew J. Maffey	WC-256	10/15/2003	7,500
Angelika Frangou	WC-258	10/15/2003	15,000
Richard Melnick	WC-260	10/15/2003	16,000
P Bioventures LLC	WC-261	10/15/2003	21,750
Michael Gottlieb	WC-262	10/15/2003	12,500
Robert Nathan	WC-264	10/15/2003	7,525
HC Wainwright	WC-265	10/15/2003	3,225
Brian Corday	WC-266	10/15/2003	3,125
Ernst Pernet	WC-267	10/15/2003	15,450
Christopher P. Baker	WC-268	12/15/2003	75,000
Anasazi Partners III, LLC	WC-269	12/15/2003	75,000
Anasazi Partners II, LLC	WC-270	12/15/2003	30,000
Pali Capital, LLC	WC-271	12/15/2003	4,462
Mathew Balk	WC-272	12/15/2003	20,081
Burnham Hill Holdings, LLC	WC-273	12/15/2003	20,082
Craig Pierson	WC-274	12/4/2003	67,500
Michael Gottlieb	WC-275	12/4/2003	67,500
Benny Daniels	WC-276	12/4/2003	15,000
Schroder & Co. Bank AG, Zurich	WC-277	12/15/2003	240,000
Clariden Investments, LTD.	WC-278	12/15/2003	6,000
Peter Levitch	WC-279	12/15/2003	9,000
Bridge Finance, LTD	WC-280	12/29/2003	61,500

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "1933 ACT") AND MAY NOT BE SOLD, OFFERED FOR SALE, ASSIGNED, TRANSFERRED OR OTHERWISE DISPOSED OF, UNLESS REGISTERED PURSUANT TO THE PROVISIONS OF THAT ACT OR A SATISFACTORY OPINION OF COUNSEL IS OBTAINED STATING THAT SUCH DISPOSITION IS IN COMPLIANCE WITH AN AVAILABLE EXEMPTION FROM SUCH REGISTRATION.

VOID AFTER 5:00 P.M. EASTERN TIME ON SEPTEMBER 14, 2005

BIOKEYS PHARMACEUTICALS, INC.

(Incorporated under the laws of the State of Delaware)

WARRANT FOR THE PURCHASE OF SHARES OF COMMON STOCK

No. WA - 2A

Originally issued as of September 15, 1998
Re-Issued as of June 14, 2001 (Transfer)

FOR VALUE RECEIVED, BIOKEYS PHARMACEUTICALS, INC. (the "Company"), a Delaware corporation, hereby certifies that ROBERT J. NEBORSKY AND SANDRA S. NEBORSKY, JTWR0S, or their permitted assigns (collectively referred to as the "Holder") are entitled, subject to the provisions of this Warrant, to purchase from the Company, during the period commencing on the date of this Warrant and expiring at 5:00 p.m. Eastern Time on September 14, 2005 (the "Expiration Date") up to FIFTY THOUSAND TWO HUNDRED FIFTY-FOUR (50,254) fully paid and non-assessable shares of the Company's Common Stock (the "Warrant Shares"), at an exercise price of \$0.49 per share (the "Exercise Price"), subject to adjustment as set forth below.

The term "Common Stock" means, unless the context otherwise indicates, the Common Stock of the Company as constituted on the date hereof (the "Base Date"). The number of shares of Common Stock to be received upon the exercise of this Warrant, and the Exercise Price, may be subject to adjustment from time to time as hereinafter set forth. The term "Company" means, unless the context otherwise indicates, the corporation named above as well as (i) any immediate or more remote successor corporation resulting from the merger or consolidation of the Company (or any immediate or more remote successor corporation of the Company) with another corporation, or (ii) any corporation to which the Company (or any immediate or more remote successor corporation of the Company) has transferred its property or assets as an entirety or substantially as an entirety.

The Holder agrees with the Company that this Warrant is issued, and all the rights hereunder shall be held subject to, all of the conditions, limitations and provisions set forth herein.

1. Expiration of Warrant. The Warrant shall expire at 5:00 p.m. Eastern Time on the Expiration Date or, if such day is a day on which banking institutions in New York are authorized by law to close, then on the next succeeding day that shall not be such a day.

2. Exercise of Warrant.

a. This Warrant may be exercised in whole or in part at any time after the date hereof or at any other time as specifically provided for herein, by presentation and surrender of this Warrant to the Company at its principal office, or at the office of its stock transfer agent, if any, with the Warrant Exercise Form attached hereto duly executed and accompanied by payment (either in cash or by certified or official bank check, payable to the order of the Company) of the Exercise Price for the number of shares specified in such form, together with instruments of transfer, if appropriate, duly executed by the Holder or his or her duly authorized attorney. If this Warrant should be exercised in part only, the Company shall, upon surrender of this Warrant for cancellation, execute and deliver a new Warrant, subject to all of the conditions, limitations, and provisions set forth herein, evidencing the rights of the Holder thereof to purchase the balance of the shares purchasable hereunder. Upon receipt by the Company of this Warrant, together with payment of the Exercise Price, at its office, or by the stock transfer agent of the Company at its office, in proper form for exercise, the Holder shall be deemed to be the holder of record of the shares of Common Stock issuable upon such exercise, notwithstanding that the stock transfer books of the Company shall then be closed or that certificates representing such shares of Common Stock shall not then be actually delivered to the Holder. The Holder shall pay any and all documentary stamp or similar issue or transfer taxes payable in respect of the issue or delivery of shares of Common Stock on exercise of this Warrant.

b. As an alternative to payment of the aggregate Exercise Price in accordance with paragraph (a) above, Holder may elect to effect a cashless exercise by so indicating on the Warrant Exercise Form attached hereto and including a calculation of the number of shares of Common Stock to be issued upon such exercise in accordance with the terms hereof (a "Cashless Exercise"). In the event of a Cashless Exercise, the Holder shall surrender this Warrant for that number of shares of Common Stock determined by (i) multiplying the number of Warrant Shares for which this Warrant is being exercised by the difference between the bid price of a share of Common Stock and the Exercise Price, as of the trading day immediately before the date of exercise, and (ii) dividing the product by the bid price of one share of Common Stock on the trading day immediately preceding the date of exercise.

c. The Holder may not exercise this Warrant to the extent that the number of Warrant Shares to be received pursuant to such exercise, aggregated with all other shares of Common Stock then owned by the Holder beneficially or deemed beneficially owned by the Holder, would result in the Holder owning more than 9.9% of all of such Common Stock as would be outstanding on such date, as determined in accordance with Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

3. Reservation of Shares. The Company will at all times reserve for issuance and delivery upon exercise of this Warrant all shares of Common Stock or other shares of capital stock of the Company (and other securities) from time to time receivable upon exercise of this Warrant. All such shares (and other securities) shall be duly authorized and, when issued upon such exercise, shall be validly issued, fully paid and non-assessable and free of all preemptive rights.

4. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant, but, if the holder is entitled to any fractional share upon such exercise, the Company shall pay the Holder an amount equal to the fair market value of such fractional share of Common Stock, in lieu of each fraction of a share otherwise called for upon any exercise of this Warrant, as determined by the Company's Board of Directors.

5. Exchange, Transfer, Assignment or Loss of Warrant. This Warrant is exchangeable, without expense, at the option of the Holder, upon presentation and surrender hereof to the Company or at the office of its stock transfer agent, if any, for other Warrants of different denominations, entitling the Holder or Holders thereof to purchase in the aggregate the same number of shares of Common Stock purchasable hereunder. Upon surrender of this Warrant to the Company or at the office of its stock transfer agent, if any, with the Assignment Form annexed hereto duly executed and funds sufficient to pay any transfer tax, the Company shall, without charge (but subject to the restrictions on transfer set forth in Sections 11 and 12 below) execute and deliver a new Warrant in the name of the assignee named in such instrument of assignment, and this Warrant shall promptly be cancelled. This Warrant may be divided or combined with other Warrants that carry the same rights upon presentation hereof at the office of the Company or at the office of its stock transfer agent, if any, together with a written notice specifying the names and denominations in which new Warrants are to be issued and signed by the Holder hereof.

6. Rights of the Holder. The Holder shall not, by virtue hereof, be entitled to any rights of a stockholder in the company, either at law or in equity, and the rights of the Holder are limited to those expressed in this Warrant.

7. Adjustment Provisions.

a. If the Company, at any time after the Base Date and prior to exercise of this Warrant, shall have subdivided its outstanding shares of Common Stock (or other securities at the time receivable upon the exercise of the Warrant) by recapitalization, reclassification or split-up thereof, or if the Company shall have declared a stock dividend or distributed shares of Common Stock to its stockholders, the number of Warrant Shares purchasable under this Warrant immediately prior to such exercise shall be proportionately increased, and if the Company, prior to such exercise, shall have at any time combined the outstanding shares of Common Stock by recapitalization, reclassification or combination thereof, the number of Warrant Shares subject to this Warrant immediately prior to exercise shall be proportionately decreased.

b. In case of any reorganization of the Company (or any other corporation, the securities of which are at the time receivable on the exercise of this Warrant) after the Base Date, or in case after such Base Date the Company (or any such other corporation) shall consolidate with or merge into another corporation or convey all or substantially all of its assets to another corporation, then, and in each such case, the Holder of this Warrant upon the exercise thereof as provided in Section 2 above, at any time after the consummation of such reorganization, consolidation, merger or conveyance, shall be entitled to receive the securities or property to which such Holder would have been entitled upon such consummation if such Holder had exercised this Warrant immediately prior thereto.

c. Whenever the number of Warrant Shares purchasable upon the exercise of this Warrant is required to be subject to adjustment, the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to such adjustment by a fraction (x) the numerator of which shall be the amount of Warrant Shares which would be purchasable upon exercise immediately prior to such adjustment and (y) the denominator of which shall be the number of Warrant Shares so purchasable immediately after such adjustment.

d. The Company will not, by amendment of its Articles of Incorporation or through reorganization, consolidation, merger, dissolution, issue or sale of securities, sale of assets or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder of this Warrant. Without limiting the generality of the foregoing, while any Warrant is outstanding, the Company:

- (i) will not permit the par value, if any, of the shares of stock receivable upon the exercise of this Warrant to be above the amount payable therefor upon such exercise; and
- (ii) will take all such action as may be necessary or appropriate in order that the Company may validly and legally issue or sell fully paid and non-assessable stock upon the exercise of all Warrants at the time outstanding.

e. In case:

- (i) the Company shall take a record of the holders of its Common Stock (or other securities at the time receivable upon the exercise of the Warrant) for the purpose of entitling them to receive any dividend (other than a cash dividend at the same rate as the rate of the last cash dividend theretofore paid) or other distribution, or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities, or to receive any other right; or
- (ii) of any capital reorganization of the Company, any reclassification of the capital stock of the Company, any consolidation or merger of the Company with or into another corporation, or any conveyance of all or substantially all of the assets of the Company to another corporation; or

(iii) of any voluntary or involuntary dissolution, liquidation or winding up of the Company; or

(iv) any other event specified in this Section 9 requiring the taking of such a record.

Then, and in each such case, the Company shall mail or cause to be mailed to each holder of any Warrant at the time outstanding a notice specifying, as the case may be, the date on which a record is to be taken for the purpose of such dividend, distribution or right, and stating the amount and character of such dividend, distribution or right; or the date on which such reorganization, reclassification, consolidation, merger, conveyance, dissolution, liquidation or winding up is to take place, and the time, if any, to be fixed, as to which the holders of record of Common Stock (or such other securities at the time receivable upon the exercise of the Warrant) shall be entitled to exchange their shares of Common Stock (or such other securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, conveyance, dissolution, liquidation or winding up. Such notice shall be mailed at least twenty days prior to the record date therein specified and this Warrant may then be exercised prior to said record date during the term of the Warrant and without regard to any waiting period which may be set forth under any other provision of this Warrant.

8. Registration Rights.

a. If the Company proposes, at any time prior to the Expiration Date, to file a registration statement with the Securities and Exchange Commission (the "Commission") on a Form S-1 or comparable general form for registration under the 1933 Act and relating to securities issued or to be issued by it, then it shall give written notice of such proposed filing to the Holder. If, within thirty days after the giving of such notice, the Holder shall request in writing that all or any of the Warrant Shares be included in such proposed registration, the Company will also register such shares as shall have been requested in writing. While the registration of such Warrant Shares will not require the exercise of the Warrant prior to the effective date of such registration, the Holder will be required to demonstrate a bona fide present intention to sell the Warrant Shares being registered promptly after the registration statement becomes effective, failing which the Company may take steps to withdraw such Warrant Shares from registration. If all such Warrant Shares have been so registered, the rights described in Section 8 (b) below shall be of no force or effect. The provisions of this paragraph a. shall not apply to a registration statement filed in connection with an initial public offering by the Company.

b. In addition, if by September 15, 2000, the Company has not filed with the Commission a registration statement covering shares of Common Stock, Holder may give notice to the Company at any time after September 15, 2000 and prior to the Expiration Date to the effect that such holder desires to register, for sale under the 1933 Act, any Warrant Shares, in which case the Company will promptly, on one occasion only, no later than 90 days after receipt of such notice, file a post-effective amendment to any current registration statement or a new registration statement, to the end that the Warrant Shares designated in such notice may be publicly sold under the 1933 Act as promptly as practicable thereafter, and the Company will use its best effort to cause such registration statement to become and remain effective (including the taking of such steps as are necessary to obtain the removal of any stop order); provided however, that the Holder shall furnish the Company with such appropriate information in connection therewith as the Company may reasonably request in writing.

c. The Holder may give the notice requiring the filing of a registration statement under the Act as set forth in Subsection b above on not more than one occasion prior to the Expiration Date.

d. In connection with the filing of a registration statement pursuant to this Section 8, the Company shall:

- (i) notify such Holder as to the filing and status thereof and of all amendments thereto filed prior to the effective date of said registration statement;
- (ii) notify such Holder promptly after it shall have received notice of the time when the registration statement becomes effective or any supplement to any prospectus forming a part of the registration statement has been filed;
- (iii) prepare and file without expense to such Holder any necessary amendment or supplement to such registration statement or prospectus as may be necessary to comply with the 1933 Act or advisable in connection with the proposed distribution of the securities by such Holder;
- (iv) take all reasonable steps to qualify the Warrant Shares for sale under the securities or blue sky laws of such reasonable number of states as such Holder may designate in writing and to register or obtain the approval of any federal or state authority which may be required in connection with the proposed distribution, except, in each case, in jurisdictions in which the Company must either qualify to do business or file a general consent to service of process as a condition of the qualification of such securities;
- (v) notify such Holder of any stop order suspending the effectiveness of the registration statement and use its reasonable best efforts to remove such stop order;
- (vi) undertake to keep such registration statement and prospectus effective for a period of one year after its effective date;
- (vii) furnish to such Holder as soon as available, copies of any such registration statement and each preliminary or final prospectus and any supplement or amendment required to be prepared pursuant to the foregoing provisions of this Section, all in such quantities as such Holder may from time to time reasonably request.

e. The Holder agrees to pay any underwriting discounts and commissions, transfer taxes, registration fees and the Holder's own counsel fees with respect to the Warrant Shares being registered. The Company will pay all other costs and expenses in connection with a registration statement to be filed pursuant to this Section 8, including, without limitation, the fees and expenses of counsel for the Company, the fees and expenses of its accountants, and all other costs and expenses incident to the preparation, printing and filing under the Act of any such registration statement, each prospectus and all amendments and supplements thereto, the costs incurred in connection with the qualification of such securities for sale in such reasonable number of states as the Holder have designated, including fees and disbursements of counsel for the Company, and the costs of supplying a reasonable number of copies of the registration statement, each preliminary prospectus, final prospectus and any supplements or amendments thereto to such Holder.

f. The Company agrees to enter into an appropriate cross-indemnity agreement with any underwriter (as defined in the 1933 Act) for such Holder in connection with the filing of a registration statement pursuant to this Section.

g. If the Company shall file any registration statement including therein all or any part of the shares of the Company's Common Stock held by the Holder, the Company and each Holder shall enter into an appropriate cross-indemnity agreement whereby the Company shall indemnify and hold harmless the Holder against any losses, claims, damages or liabilities (or actions in respect thereof) arising out of or based upon any untrue statement or alleged untrue statement of any material fact contained in such registration statement, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make statements therein not misleading unless such statement or omission was made in reliance upon and in conformity with written information furnished or required to be furnished by any such Holder, and each such Holder shall indemnify and hold harmless the Company, each of its directors and officers who have signed the registration statement and each person, if any, who controls the Company, within the meaning of the 1933 Act against any losses, claims, damages or liabilities (or actions in respect thereof) arising out of or based upon any untrue statement or alleged untrue statement of any material fact contained in such registration statement, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make statements therein not misleading, if the statement or omission was made in reliance upon and in conformity with written information furnished or required to be furnished by such Holder expressly for use in such registration statement.

h. Anything to the contrary herein notwithstanding, if all of the shares of the Company's Common Stock then held by the Holder may be sold by the Holder thereof in a transaction pursuant to Rule 144 promulgated under the 1933 Act, the Holder shall not be entitled to require the Company to register such securities pursuant to any registration statement filed under the 1933 Act.

i. For a period of one year after the effective date of the registration statement filed pursuant to this Section 8, the Company at its expense will file such post-effective amendments as may be necessary to make available for use a prospectus meeting the requirements of the 1933 Act. The Company will cause copies of such prospectus to be delivered to any person selling the shares of Common Stock as may be required by the 1933 Act and the rules and regulations of the Commission.

j. If a managing underwriter acting in good faith determines that the inclusion of all or any part of the Warrant Shares in a registration statement would adversely affect the marketing of securities intended to be underwritten, the amount of such Warrant Shares to be registered shall be reduced or limited to the amount which the underwriter, in its discretion, reasonably exercised in good faith, determines would not adversely affect the successful marketing of the underwritten securities. As an alternative, such underwriter may request that the sale of any Warrant Shares included in a registration statement on behalf of a Holder be delayed for a period of up to nine months after the conclusion of the distribution of securities to be offered on behalf of the Company, and, upon receipt of such request, such Holder shall execute an agreement to such effect as a condition of inclusion in such registration statement.

9. Restrictions on Transfer All Transfers to Comply with the 1933 Act, etc. Prior to the registration of the Warrant Shares as set forth in Section 8, or the sale of such Warrant Shares pursuant to Rule 144 of the Commission, this Warrant and any Warrant Shares may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of except to members of the immediate family of Anthony Kamin, unless otherwise agreed by the Board of Directors of the Company. Until such registration or sale pursuant to Rule 144, this Warrant and the Warrant Shares may be transferred to other persons, but only with the approval of the Board of Directors of the Company. Each transferee of this Warrant or any Warrant Shares must be: (1) a person who, in the opinion of counsel to the Company, is a person to whom this Warrant or the Warrant Shares may legally be transferred without registration and without the delivery of a current prospectus under the 1933 Act with respect thereto, and then only against receipt of (i) requested information concerning the status of such person and such transfer under federal and state securities laws and (ii) the agreement of such person to comply with the provisions of this Section 9 with respect to any resale or other disposition of such securities; or (2) a person to whom delivery is made of a prospectus then meeting the requirements of the 1933 Act relating to such securities and the offering thereof for such sale or disposition, and thereafter to all successive assignees. The Company reserves the right to require an opinion of counsel for the Holder with respect to any proposed transfer other than transfers made pursuant to a registered securities offering.

10. Legend. Unless the Warrant Shares have been registered under the 1933 Act, upon exercise of the Warrant and the issuance of any of the Warrant Shares, all certificates representing such shares shall bear on the face thereof substantially the following legend:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, offered for sale, assigned, transferred or otherwise disposed of, unless registered pursuant to the provisions of that Act or unless an opinion of counsel to the Corporation is obtained stating that such disposition is in compliance with an available exemption from such registration.

11. Notices. All notices required hereunder shall be in writing and shall be deemed given when transmitted (with verified receipt), delivered personally or mailed by certified or registered mail, return receipt requested, to the Company or Holder, as the case may be, for whom such notice is intended, to the address of such party of which the Company or Holder has been advised by written notice.

12. Applicable Law. The Warrant is issued under and shall for all purposes be governed by and construed in accordance with the laws of the State of Delaware.

13. Loss of Warrant Certificate. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and (in the case of loss, theft or destruction) of reasonably satisfactory indemnification, and upon surrender and cancellation of this Warrant, if mutilated, the company shall execute and deliver a new Warrant of like tenor and date. Any such new Warrant executed and delivered shall constitute an additional contractual obligation on the part of the Company, whether or not this Warrant so lost, stolen, destroyed or mutilated shall be at any time enforceable by anyone.

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed on its behalf, in its corporate name, by its duly authorized officer, all as of the day and year first above written.

Reissued: June 14, 2001

BIOKEYS PHARMACEUTICALS, INC.,
a Delaware corporation

By: /s/ Warren Lau

President

WARRANT EXERCISE FORM

The undersigned hereby irrevocably elects to exercise the within Warrant to the extent of purchasing _____ shares of Common Stock of Biokeys Pharmaceuticals, Inc. and hereby makes payment of \$_____ representing the aggregate Exercise Price required in connection therewith. The undersigned also surrenders the Warrant certificate to be processed in accordance with the terms set forth therein.

Signature

Signature, if jointly held

Print Name or Names

Date

INSTRUCTIONS FOR ISSUANCE OF STOCK

(if other than to the registered holder of the within Warrant)

Name

(Please typewrite or print in block letters)

Address

Social Security or Taxpayer
Identification Number

ASSIGNMENT FORM

FOR VALUE RECEIVED, _____ hereby sells, assigns
and transfers unto

Name _____

(Please typewrite or print in block letters)

Address: _____

the right to purchase Common Stock of Biokeys Pharmaceuticals, Inc. represented
by this Warrant to the extent of _____ shares as to which such right is
exercisable and does hereby irrevocably constitute and appoint
_____ Attorney, to transfer the same on the books of the Company
with full power of substitution in the premises.

DATED: _____

Signature

Signature, if jointly held

June 30, 2004

ADVENTRX Pharmaceuticals, Inc.
9948 Hibert Street, Suite 100
San Diego, California 92131

Attention: Steven M. Plumb, CPA
Chief Financial Officer

RESALE REGISTRATION STATEMENT ON FORM S-3 OF ADVENTRX PHARMACEUTICALS, INC. ON
BEHALF OF SELLING SECURITYHOLDERS

Ladies and Gentlemen:

We have acted as counsel to ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the registration under the Securities Act of 1933, as amended (the "Act"), of shares (the "Shares") of the Company's Common Stock, par value \$0.001 per share, pursuant to a Registration Statement on Form S-3 (the "Registration Statement") to be filed by the Company with the Securities and Exchange Commission on or about the date of this opinion, on behalf of selling securityholders.

The Shares were issued, or are issuable pursuant to warrants which were issued, by the Company in transactions which occurred between September 15, 1998, and June 3, 2004.

As counsel to the Company, we have reviewed the corporate proceedings taken by the Company with respect to the authorization of the issuance of the Shares. We have also examined and relied upon originals or copies, certified or otherwise authenticated to our satisfaction, of such corporate records, documents, agreements or other instruments of the Company as we have deemed necessary or advisable for purposes of this opinion. As to all matters of fact (including factual conclusions and characterizations and descriptions of purpose, intention or other state of mind) we have entirely relied upon certificates of officers of the Company, and have assumed, without independent inquiry, the accuracy of those certificates.

ADVENTRX Pharmaceuticals, Inc.
June 30, 2004
Page 2

In rendering the opinions hereinafter expressed, we have examined and relied upon originals or copies of such documents and instruments as we have deemed appropriate, including the following documents and instruments:

- A. The Certificate of Incorporation of the Company, as amended, certified by the Delaware Secretary of State on June 24, 2004.
- B. The Certificate of Good Standing of the Company, issued by the Delaware Secretary of State on June 24, 2004.
- C. The By-Laws of the Company, certified by the Secretary of the Company on June 30, 2004.
- D. Records of proceedings and actions of the Board of Directors of the Company.

We have assumed the genuineness of all signatures, the conformity to the originals of all documents reviewed by us as copies, the authenticity and completeness of all original documents reviewed by us in original or copy form and the legal competence of each individual executing a document. We have also assumed that the registration requirements of the Act and all applicable requirements of state laws regulating the sale of securities will have been duly satisfied. We have also assumed that with respect to any Shares to be issued upon the exercise of warrants, the Company will receive the specified consideration for the Shares as set forth in such warrants and any other agreements pursuant to which said warrants were issued.

This opinion is limited solely to the Delaware General Corporation Law, which term as used herein means the statutory provisions thereof, all applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting those laws.

Subject to the foregoing, it is our opinion that such of the Shares as have been issued have been duly authorized and are validly issued, fully paid and nonassessable, and such of the Shares as are issuable in the future have been duly authorized and will be validly issued, fully paid and nonassessable when issued pursuant to the terms of the warrants and other agreements pursuant to which such Shares are issuable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and as an exhibit to any further registration statement to be filed pursuant to Rule 462(b) under the Securities Act with respect to the Shares, and to the reference to this firm under the heading "Legal Matters" in the prospectus included in the Registration Statement. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ BINGHAM McCUTCHEN LLP

BINGHAM McCUTCHEN LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated February 13, 2004, on our audit of the consolidated financial statements of ADVENTRX Pharmaceuticals, Inc. as of and for the years ended December 31, 2003 and 2002, and for the period from June 12, 1996 (date of inception) through December 31, 2003, which report appears in the Annual Report on Form 10-KSB for the year ended December 31, 2003 previously filed by ADVENTRX Pharmaceuticals, Inc. with the Securities and Exchange Commission. We also consent to the related reference to our Firm under the caption "Experts".

/s/J.H. COHN LLP

San Diego, California
June 29, 2004