As filed with the Securities and Exchange Commission on May 4, 2006
Registration Statement No. 333-_____

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	**84-1318182**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

6725 Mesa Ridge Road, Suite 100
San Diego, California 92121
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Carrie E. Carlander
Chief Financial Officer
ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, California 92121
(858) 552-0866
facsimile: (858) 552-0867
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications to:

Venrice R. Palmer, Esq.
Charles Lee, Esq.
John H. Kim, Esq.
Bingham McCutchen LLP
Three Embarcadero Center
San Francisco, California 94111
phone: (415) 393-2000
facsimile: (415) 393-2286
email: venrice.palmer@bingham.com
charles.lee@bingham.com
john.kim@bingham.com

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. o

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered (1)	Amount to be registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common stock, par value $0.001 per share	2,391,996	$10,500,862.44	$4.39	$1,123.59

(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 Securities Act Rule 416(b).

(2) Estimated solely for the purpose of determining the registration fee, based upon the average of the high and low sales prices of the common stock on the American Stock Exchange LLC on May 3, 2006, pursuant to Rule 457(c) under the Securities Act.

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.

Table of Contents

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: _____, 2006

PROSPECTUS

2,391,996 Shares
Common Stock

ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, California 92121
(858) 558-0866

The security holders of ADVENTRX Pharmaceuticals, Inc. (the "Company") listed in this prospectus are offering an aggregate of 2,391,996 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).

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. 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 May 3, 2006, the last reported sale price of our common stock on the American Stock Exchange LLC was $4.50 per share.

INVESTING IN THE COMMON STOCK INVOLVES RISKS.
SEE "RISK FACTORS" BEGINNING ON PAGE 5.

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 ____ __, 2006

Table of Contents

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

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell our common stock in any jurisdiction where the offer or sale is not permitted. The information in this prospectus and any prospectus supplement is accurate as of the date on the front cover of this prospectus or any prospectus supplement, and the information in documents we file with the SEC and incorporate by reference into this prospectus or any prospectus supplement, is accurate as of the date on those documents.

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 actual results to be materially different from projected results expressed or implied by the 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. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors described under the heading “Risk Factors” and elsewhere in this prospectus. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law, even as new information becomes available or other events occur in the future.

Where You Can Find More Information About Us

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file with the Commission at the Public Reference Room at the Commission, 100 F Street, N.E., 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 or any prospectus supplement.

We have filed with the Commission a registration statement under the Securities Act on Form S-3 relating to the common stock offered by this prospectus. This prospectus and any prospectus supplement constitute a part of the registration statement but do 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 certain information to you by referring you to another document we have filed with the Commission. We may furnish other information to the Commission which is not considered to be "filed" and is therefore not incorporated by reference into or otherwise a part of this prospectus, unless we indicate to the contrary. The information incorporated by reference is an important part of this prospectus and information that we file later with the Commission will automatically update this prospectus and replace any outdated information. We incorporate by reference the following:

(a) the section entitled "Description of Registrant's Securities" contained in the Registrant's Registration Statement on Form 8-A (file No. 001-32157) filed with the Commission on April 27, 2004;

(b) our Annual Report on Form 10-K for the fiscal year ended December 31, 2005 filed with the Commission on March 16, 2006;

(c) our Current Report on Form 8-K filed with the Commission on January 30, 2006;

(d) our Current Report on Form 8-K filed with the Commission on January 31, 2006;

(e) our Current Report on Form 8-K filed with the Commission on February 6, 2006;

(f) our Current Report on Form 8-K filed with the Commission on February 15, 2006;

(g) our Current Report on Form 8-K filed with the Commission on March 1, 2006;

(h) our Current Report on Form 8-K filed with the Commission on March 20, 2006 (Items 4.02, 8.01 and 9.01), as amended by Amendment No. 1 filed with the Commission on March 27, 2006;

(i) our Current Report on Form 8-K filed with the Commission on March 20, 2006 (Items 8.01 and 9.01);

(j) our Current Report on Form 8-K filed with the Commission on April 6, 2006;

(k) our Current Report on Form 8-K filed with the Commission on April 11, 2006 as amended by Amendment No. 1; and

(l) any future filings we make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement, and until we file a post-effective amendment which indicates the termination of the offering of the securities made by this prospectus.

You may request a copy of these filings, at no cost, by writing or telephoning:

Carrie E. Carlander
Chief Financial Officer
ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, California 92121
(858) 552-0866

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

Our Company

We are a biopharmaceutical research and development company focused on introducing new technologies for anticancer and antiviral treatments that improve the performance and safety of existing drugs by addressing significant problems such as drug metabolism, toxicity, bioavailability and resistance. We do not manufacture, market, sell or distribute any product. Pursuant to license agreements with University of Southern California and the acquisition described below, we have rights to drug candidates in varying stages of development. Our current drug candidates are CoFactor, ANX-530, Selone and Thiovir. All of these drug candidates are described in our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005.

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

In July 2004, we formed a wholly-owned subsidiary, ADVENTRX (Europe) Ltd., in the United Kingdom for the purpose of conducting drug trials in the European Union.

We have incurred net losses since our inception. As of December 31, 2005, our accumulated deficit was approximately $59,964,840 . We expect to incur substantial and increasing losses for the next several years as we continue development and possible commercialization of new products.

To date, we have funded our operations primarily through sales of equity securities.

Our business is subject to significant risks, including risks inherent in our ongoing clinical trials, the regulatory approval processes, the results of our research and development efforts, commercialization, and competition from other pharmaceutical companies.

Recent Developments

On April 7, 2006, we entered into an Agreement and Plan of Merger (the “Merger Agreement”) among the Company, SD Pharmaceuticals, Inc., a Delaware corporation (“SDP”), Speed Acquisition, Inc., a Delaware corporation and a wholly-owned subsidiary of the Company (“Merger Sub”), Paul Marangos and Dr. Andrew X. Chen, each as stockholders of SDP and Paul Marangos, as an individual acting as the stockholder representative. Pursuant to the Merger Agreement, we acquired SDP through the merger of Merger Sub into SDP and SDP will continue as the surviving corporation and as a wholly-owned subsidiary of the Company (the “Merger”).

Upon the closing of the transaction on April 26, 2006, ADVENTRX acquired certain intellectual property rights to eight oncology and infectious disease product candidates, including certain ex-US rights to SDP-012 (ANX-530, vinorelbine emulsion). In October 2005, ADVENTRX announced it had licensed US development and marketing rights to SDP-012 (ANX-530) from SDP. Certain product candidates that ADVENTRX acquired as a result of the merger are based on a nano-emulsion technology for both soluble and insoluble parenteral drugs. The nano-emulsion technology was developed by Dr. Andrew X. Chen and is designed to enable the delivery of vein irritating or difficult to dissolve drugs without excipient-induced adverse effects. Many of the product candidates are based on currently approved drugs and may qualify for the 505(b)(2) regulatory process. Certain product candidates obtained in the transaction are being evaluated by ADVENTRX as possible out-licensing opportunities.

The SDP product portfolio consists of five anticancer and three anti-infective therapies which are listed below:

- SDP-013 — A non-allergenic, non cremophor-containing emulsion formulation of paclitaxel (Taxol™) designed to eliminate the need for immunosuppressant premedication, which is recommended for paclitaxel therapy to reduce the incidence and severity of severe hypersensitivity reaction. Paclitaxel is approved to treat breast, ovarian and non-small cell lung cancers. Taxol™ worldwide sales were approximately $750 million in 2005. (Source: Bristol-Myers Squibb).

- SDP-014 — A novel docetaxel (Taxotere™) formulation not containing polysorbate 80 or other detergents, intended to eliminate the need for multiday immunosuppressant premedication, which is recommended for docetaxel therapy to reduce the incidence and severity of allergic reaction. Taxotere™ is approved to treat breast, non-small cell lung, prostate and gastric cancers. Worldwide Taxotere™ sales were approximately $1.6 billion in 2005. (Source: Sanofi-Aventis)
- SDP-012 (vinorelbine emulsion) — A novel emulsion formulation of vinorelbine tartrate designed to reduce vein irritation associated with the drug. Vinorelbine is approved to treat non-small cell lung cancer. According to IMS Health, worldwide sales of vinorelbine in 2005 were over $150 million.
- SDP-111 — A novel formulation of beta-elemene, a small molecule anticancer agent belonging to the triterpene family and currently approved in China for a variety of cancers.
- SDP-112 — An emulsion formulation of alpha-tocopheryl succinate, a form of vitamin E which has been shown to selectively facilitate apoptosis, or cell death, in cancer cells.
- SDP-015 — A proprietary intravenous formulation of an approved antibiotic in the macrolide family known as clarithromycin. Clarithromycin is approved for mild to moderate bacterial infections such as in community-acquired pneumonia. Only oral formulations of clarithromycin are currently available in the US.
- SDP-011 — A broad spectrum intranasal/topical anti-viral gel intended for use in cold and flu and other viral indications as an over-the-counter (OTC) product.
- SDP-016 — A novel formulation of vancomycin, a parenteral glycopeptide antibiotic approved to treat gram-positive bacterial infections. SDP-016 is designed to reduce the vein irritation and phlebitis associated with the IV-delivered drug.

Risk Factors

Readers and prospective investors in our securities should carefully consider the following risk factors as well as the other information contained or incorporated by reference in this report. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties that management is not aware of or focused on or that management currently deems immaterial may also impair our business operations. This report is qualified in its entirety by these risk factors.

If any of the following risks actually occur, the Company's financial condition and results of operations could be materially and adversely affected. If this were to happen, the value of the Company's securities could decline significantly, and you could lose all or part of your investment.

We have a substantial accumulated deficit and limited working capital.

We had an accumulated deficit of $59,964,840 as of December 31, 2005. 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 FDA or other regulatory agencies and successfully marketed. In addition, we fund our operations primarily through the sale of equity 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 FDA or other regulatory agencies 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.

We do not expect to generate positive cash flow from operations for at least the next several years. As a result, substantial additional equity or debt financing for research and development or clinical development will be required to fund our activities. Although we have raised equity financing in the past, including in April 2004 and July 2005, we cannot be certain that we will be able to continue to obtain such financing on favorable or satisfactory terms, if at all, or that it will be sufficient to meet our cash requirements. Any additional equity financing could result in substantial dilution to stockholders, and debt financing, if available, would likely involve restrictive covenants that 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 adequately and timely fund our capital requirements would have a material adverse effect on us.

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, (vi) be affected by third parties holding proprietary rights that will preclude us from marketing a drug product, or (vii) not be able to be manufactured by manufacturers in a timely manner in accordance with required standards of quality. 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 past, we have been faced with limiting the scope and/or delaying the launch of preclinical and clinical drug trials due to limited cash and personnel resources. We have also chosen to terminate licenses of some drug candidates that were not showing sufficient promise to justify continued expense and development. 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.

We have been delayed at certain times in the past in the development of our drug products by limited funding. In addition, if certain of our scientific and technical personnel resigned at or about the same time, the development of our drug products would probably be delayed until new personnel were hired and became familiar with the development programs.

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

Success in preclinical and 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. In the past, we have terminated licenses of drug candidates when our preclinical trials did not support or verify earlier

preclinical data. There is a significant risk that any of our drug candidates could fail to show satisfactory results in continued trials, and would not justify further development.

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. CoFactor, our leading drug candidate, would likely compete against a well-established product, leucovorin. In addition, there are numerous companies with a focus in oncology and/or anti-viral therapeutics that 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 likely competitors such as Merck and Pfizer, 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 FDA 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. Companies such as Gilead, Roche and GlaxoSmithKline all have drugs in various stages of development that could become competitors. Accordingly, competitors may succeed in commercializing products more rapidly or effectively than us, which would have a material adverse effect on us.

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, if eventually approved for commercial distribution, 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 our investments in developing new therapies. If we are successful in getting FDA approval for CoFactor, we will be competing against a generic drug, leucovorin, which has a lower cost and a long, established history of reimbursement. Receiving sufficient reimbursement for purchase costs of CoFactor will be necessary to make it cost effective and competitive versus the established drug, leucovorin. 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 FDA. 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 some federal and state proposals in the past to subject the pricing of health care goods and services, including prescription drugs, to government control and to make other changes to the U.S. health care system. None of the proposals seems to have affected any of the drugs in our programs. However, it is uncertain if future legislative proposals would be adopted that might affect the drugs in our programs or what actions federal, state, or private payors for health care treatment and services may take in response to any such health care reform proposals or legislation. Any such health care reforms could have a material adverse effect on the marketability of any drugs for which we ultimately require FDA approval.

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

The FDA 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 FDA 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 the FDA 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 our ability to utilize any of our 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 FDA 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 FDA 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 FDA approval of a drug may extend for years beyond that which is originally estimated. In addition, the FDA 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 FDA policy and the establishment of additional regulations during the period of product development and FDA 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 (iv) 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 the University of Southern California.

The patent positions of pharmaceutical companies, including ours, 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 to terminate the agreement 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. In the past, we have let lapse certain licenses for drug candidates when we determined that the expense and risk of continued development outweighed the likely benefits of that continued development. The termination of any license agreement could 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. Although we have not been notified of any patent infringement, nor notified others of patent infringement, such 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.

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. We are currently dependent upon our scientific staff, which has a deep background in our drug candidates and the ongoing preclinical and clinical trials. Recruiting and retaining senior employees with relevant drug development experience in oncology and anti-viral therapeutics is costly and time-consuming. There can be no assurance that we will be able to attract and retain such individuals on an uninterrupted basis and on commercially acceptable terms, and the failure to do so could have a material adverse effect on us by significantly delaying one or more of our drug development programs. The loss of any of our senior executive officers, including our chief executive officer and

chief financial officer, in particular, could have a material adverse effect on the company and the market for our common stock, particularly if such loss was abrupt or unexpected. All of our employees are employed on an at-will basis under offer letters. We do not have non-competition agreements with any of our employees.

We currently have no sales capability, and limited marketing capability.

We currently do not have sales personnel. We have limited marketing and business development 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 our products 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 and if 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 our current manufacturing partners. 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 FDA or other regulatory matters.

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 contract research organization (CRO) partners, when they begin in the U.S. and to expand our 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 on us.

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.

If we cannot satisfy AMEX's listing requirements, it may delist our common stock and we may not have an active public market for our common stock. The absence of an active trading market would likely make the common stock an illiquid investment.

Our common stock is quoted on the American Stock Exchange. To continue to be listed, we are required to maintain shareholders equity of $6,000,000 among other requirements. We do not satisfy that requirement as of December 31, 2005. The AMEX may consider delisting our common stock and suspend trading in the common stock in which case our common stock would likely trade in the over-the-counter market in the so-called "pink sheets" or, if available, the "OTC Bulletin Board Service." As a result, an investor would likely find it significantly more difficult to dispose of, or to obtain accurate quotations as to the value of, our shares. Our ability to raise capital would most likely also be impaired due to our ineligibility to file resale registration statements under the Securities Act.

If our common stock is delisted, it may become subject to the SEC's "penny stock" rules and more difficult to sell.

SEC rules require brokers to provide information to purchasers of securities traded at less than $5.00 and not traded on a national securities exchange or quoted on the Nasdaq Stock Market. If our common stock becomes a "penny stock" that is not exempt from these SEC rules, these disclosure requirements may have the effect of reducing trading activity in our common stock and making it more difficult for investors to sell. The rules require a broker-dealer to deliver a standardized risk disclosure document prepared by the SEC that provides information about penny stocks and the nature and level of risks in the penny market. The broker must also give bid and offer quotations and broker and salesperson compensation information to the customer orally or in writing before or with the confirmation. The SEC rules also require a broker to make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction before a transaction in a penny stock.

Changes in laws and regulations that affect the governance of public companies has increased our operating expenses and will continue to do so.

Recently enacted changes in the laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002 and the listing requirements for American Stock Exchange have imposed new duties on us and on our executives, directors, attorneys and independent accountants. In order to comply with these new rules, we have hired and expect to hire additional personnel and use additional outside legal, accounting and advisory services, which have increased and are likely to continue increasing our operating expenses. In particular, we expect to incur additional administrative expenses as we implement Section 404 of the Sarbanes-Oxley Act, which requires management to extensively evaluate and report on, and our independent registered public accounting firm to attest to, our internal controls. For example, we have incurred significant expenses, and expect to incur additional expenses, in connection with the evaluation, implementation, documentation and testing of our existing and newly implemented control systems. Management time associated with these compliance efforts necessarily reduces time available for other operating activities, which could adversely affect operating results. If we are unable to achieve full and timely compliance with these regulatory requirements, we could be required to incur additional costs, expend additional money and management time on additional remedial efforts which could adversely affect our results of operations.

Failure to implement effective control systems, or failure to complete our assessment of the effectiveness of our internal control over financial reporting, may subject us to regulatory sanctions and could result in a loss of public confidence, which could harm our operating results.

Pursuant to Section 404 of the Sarbanes-Oxley Act, beginning with our fiscal year ended December 31, 2005, we are required to include in our annual report our assessment of the effectiveness of our internal control over financial reporting. Furthermore, our independent registered public accounting firm is required to issue an opinion on whether our assessment of the effectiveness of our internal control over financial reporting is fairly stated in all material respects and separately report on whether it believes we maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005.

If we fail to remedy any material weaknesses which are uncovered, fail to timely complete our assessment, or if our independent registered public accounting firm cannot timely attest to our assessment, we could be subject to regulatory sanctions and a loss of public confidence in our internal control. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to timely meet our regulatory reporting obligations.

We have engaged in and may continue to engage in further expansion through mergers and acquisitions, which could negatively affect our business and earnings.

We have engaged in and may continue to engage in expansion through mergers and acquisitions. There are risks associated with such expansion. These risks include, among others, incorrectly assessing the asset quality of a prospective merger partner, encountering greater than anticipated costs in integrating acquired businesses, facing resistance from customers or employees, and being unable to profitably deploy assets acquired in the transaction. Additional country- and region-specific risks are associated with transactions outside the United States. To the extent we issue capital stock in connection with additional transactions, these transactions and related stock issuances may have a dilutive effect on earnings per share and share ownership.

Our earnings, financial condition, and prospects after a merger or acquisition depend in part on our ability to successfully integrate the operations of the acquired company. We may be unable to integrate operations successfully or to achieve expected cost savings. Any cost savings which are realized may be offset by losses in revenues or other charges to earnings.

Description Of Capital Stock

Our authorized capital stock consists of 1,000,000 shares of Preferred Stock, $0.01 par value, and 200,000,000 shares of common stock, $0.001 par value.

Common Stock

Our common stock is quoted on the American Stock Exchange LLC under the symbol ANX.

We have never paid cash dividends on any of our securities and do not currently expect to pay any cash dividends on our securities in the foreseeable future. There are no restrictions that limit our ability to pay dividends on our common stock or that are likely to do so in the future other than restrictions under the Delaware General Corporation Law and other applicable law.

As of May 1, 2006, there were 71,629,233 shares of common stock issued and outstanding which were held of record by approximately 7,021 stockholders.

The holders of our common stock are entitled to one vote per share held of record on all matters submitted to a vote of the stockholders. Our certificate of incorporation does not provide for cumulative voting in the election of directors. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our Board of Directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. Holders of our common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to our common stock.

In the event of our voluntary or involuntary liquidation, dissolution or winding up, the owners of shares of common stock will be entitled to share equally in any assets available for distribution after the payment in full of all debts and distributions and after the owners of any of our outstanding preferred stock have received their liquidation preferences in full.

American Stock Transfer & Trust Company is our stock transfer agent and it maintains all our stockholder records. If you have questions regarding ADVENTRX stock you own, stock transfers, address or name changes, lost stock certificates, or duplicate mailings, please contact American Stock Transfer & Trust Transfer Company directly at the address below. If your shares are held with a stockbroker, please contact your broker.

American Stock Transfer & Trust Company
59 Maiden Lane, Plaza Level
New York, NY 10038
(800) 937-5449
www.amstock.com
email address — info@amstock.com

Preferred Stock

Our Board of Directors is authorized, without action by the stockholders, to issue preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges may include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series, all or any of which may be greater than the rights of the common stock.

Use of Proceeds

All of the shares of common stock and shares of common stock issuable upon exercise of warrants 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 194,500 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 transactions exempt from the registration requirements of the Securities Act. We are registering the Registered Shares for the selling security holders who acquired their holdings either directly from us in unregistered transactions or by transfer from an investor who acquired holdings directly from us in unregistered transactions.

The following table sets forth information as of May 1, 2006 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 May 1, 2006, 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:

Name	Shares Owned Before Offering(1)	Percent Owned Before Offering(2)	Shares Being Offered	Shares Owned Upon Completion Of Offering	Percent Owned After Offering(1)
Emisphere Technologies, Inc.	50,000(3)	0.07%	50,000	0	0
Jonathan Balk	35,250	0.05%	3,000(4)	32,250	0.05%
LB (Swiss) Privatbank AG	37,500	0.05%	12,500(5)	25,000	0.03%
North Sound Legacy Institutional Fund LLC	1,005,756	1.39%	20,000(6)	985,756	1.37%
Robert J. and Sandra S. Neborsky JTWROS	24,750	0.03%	11,750(7)	13,000	0.02%
Robert J. Neborsky	12,250	0.02%	12,250(8)	0	0
Robert J. Neborsky M.D. Inc. Combination Retirement Trust	507,581	0.71%	10,000(9)	497,581	0.69%
SDS Capital Group SPC, Ltd.	595,832	0.83%	262,500(10)	333,332	0.46%
Paul J. Marangos and/or Maia Marangos, as trustees of The Marangos Family Trust, dated July 21, 1995	962,860(11)	1.34%	914,717	48,143	0.07%
Andrew X. Chen and Eiko Junii, Trustees of The Chen Family Trust dated May 8, 2000	962,860(11)	1.34%	914,717	48,143	0.07%
DLA Piper Rudnick Gray Cary US LLP	28,885(11)	0.04%	27,441	1,444	0
SEED Intellectual Property Law Group, PLLC	34,662(11)	0.05%	32,929	1,733	0
Costas Loullis	9,628(11)	0.01%	9,147	481	0
Gail Loullis	9,628(11)	0.01%	9,147	481	0
Wen Bo Hu	19,257(11)	0.03%	18,295	962	0
James A. Rock	17,194(11)	0.02%	16,335	859	0
Horace Hertz	17,193(11)	0	16,334	859	0
Jack Luchese	17,193(11)	0	16,334	859	0
James Ueberroth	17,193(11)	0	16,334	859	0
Tzu-Ping Richard Lin	1,891(11)	0	1,797	94	0
Thanh Nguyen	1,203(11)	0	1,143	60	0
Dee Conger	343(11)	0	326	17	0
Angeliki Frangou	15,000	0.02%	15,000(12)	0	0

(1) Options and warrants to purchase our common stock that are presently exercisable or exercisable within 60 days of May 1, 2006, even if such options or warrants may otherwise be subject to restriction on exercise, 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.

(2) The percentage of ownership of common stock is based on 71,629,233 shares of common stock issued and outstanding as of May 1, 2006 and excludes all shares of common stock issuable upon the exercise of outstanding options or warrants to purchase common 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 1, 2006, even if such options or warrants may otherwise be subject to restriction on exercise.

(3) Consists of 50,000 shares of common stock issuable upon the exercise of warrants held by this entity, all of which will be offered.

(4) Selling security holder is offering 3,000 shares of common stock out of a total of 35,250 shares held of which the remainder are not being offered hereby.

(5) Consists of 12,500 shares of common stock issuable upon the exercise of warrants held by this entity, all of which will be offered.

(6) Includes 8,000 shares of common stock issuable upon the exercise of warrants held by this entity, all of which will be offered.

(7) Consists of 11,750 shares of common stock issuable upon the exercise of warrants held by this selling securityholder, all of which will be offered.

(8) Consists of 12,250 shares of common stock issuable upon the exercise of warrants held by this person, all of which will be offered.

(9) Consists of 10,000 shares of common stock issuable upon the exercise of warrants held by this selling securityholder, all of which will be offered.

(10) Includes 75,000 shares of common stock issuable upon the exercise of warrants held by this entity, all of which will be offered.

(11) These selling security holders acquired their common stock upon the closing of the merger of SDP described above under “Recent Developments.”

- Under the Merger Agreement relating to that transaction, upon closing of the Merger, we issued an aggregate of approximately 2,099,990 shares of our common stock (the “Merger Consideration Shares”) to the stockholders of SDP.
- Within 35 days following closing of the Merger, we are required to file with the Securities and Exchange Commission the registration statement on Form S-3 (of which this prospectus is a part) covering the resale of the Merger Consideration Shares less 5% of the Merger Consideration Shares (the “Indemnity Withhold Shares”), or an aggregate of 1,994,996 shares to be registered. If the registration statement does not become effective under the Securities Act by June 12, 2006, we will be obligated to make an aggregate cash payment of $100,000 to the selling security holders on a pro rata basis.
- Under the Merger Agreement, we are required to use commercially reasonable efforts to cause the registration statement to become effective as soon as reasonably practicable after the closing date of the Merger, and to remain effective until the first anniversary of the closing date, subject to certain exceptions.
- The Company has no obligation to maintain the effectiveness and may terminate the effectiveness of the registration statement under the Securities Act at any time after the first anniversary of the closing date of the Merger.
- The Marangos Family Trust, dated 1995, and Chen Family Trust, dated 2000, two of the selling security holders under this prospectus (the “Founder Holders”), have agreed that on each of July 2, 2006, August 2, 2006 and September 1, 2006, a number of Merger Consideration Shares equal to 10% of the number of Merger Consideration Shares issued to each Founder Holder at the Closing shall be released from these resale restrictions and may be sold or disposed of at any time thereafter. On September 30, 2006, these resale restrictions will expire with respect to all Merger Consideration Shares held by the Founding Holders.

(12) Consists of 15,000 shares of common stock issuable upon the exercise of warrants held by this person, all of which will be offered.

Plan Of Distribution

We are registering the shares of common stock covered by this prospectus on behalf of the selling security holders listed in this prospectus. Sales of shares may be made by selling security holders, including their respective donees 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 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 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 of 1933, as amended (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 Securities Exchange Act of 1934, as amended (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
- 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 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 and any transfer agent fees in connection with the sale of the shares.

Legal Matters

The validity of the issuance of shares of common stock we are offering under this prospectus will be passed upon for us by Bingham McCutchen LLP, San Francisco, California.

Experts

Our consolidated balance sheets as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for each of the years in the three-year period ended December 31, 2005, and for the period from June 12, 1996 (date of inception) through December 31, 2005, and management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of our internal control over financial reporting as of December 31, 2005, have been incorporated by reference in this prospectus and in the registration statement in reliance on the reports of J.H. Cohn LLP, independent registered public accounting firm, given upon the authority of that firm as experts in accounting and auditing. The report of J.H. Cohn LLP notes 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 such other auditors.

The financial statements of SD Pharmaceuticals, Inc. as of December 31, 2005 and 2004 and for the year ended December 31, 2005 and for the period from June 16, 2004 (date of inception) to December 31, 2004 have been incorporated by reference in this prospectus and in the registration statement in reliance on the report, which includes an explanatory paragraph relating to the ability of SD Pharmaceuticals, Inc. to continue as a going concern, of J.H. Cohn LLP, independent registered public accounting firm, given upon the authority of that firm as experts in accounting and auditing.

ADVENTRX PHARMACEUTICALS, INC.

2,391,996 Shares

COMMON STOCK

PROSPECTUS

_____, 2006

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	$1,123.59
Legal Fees and Expenses	$ 20,000
Accounting Fees and Expenses	20,000
Miscellaneous Fees and Expenses	3,876.41
Total	$ 45,000

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.

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

Item 16. Exhibits

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

Item 17. Undertakings

The undersigned registrant hereby undertakes:

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

(i) to include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; or

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

Provided, *however*, that paragraphs 1(i), 1(ii) and (1)(iii) of this section 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 Securities Exchange

Act of 1934 that are incorporated by reference in the registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

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

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

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

(5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant’s annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions described in Item 15 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 by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Signatures

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on 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 May 4, 2006.

ADVENTRX Pharmaceuticals, Inc.

By: /s/ Carrie E. Carlander
Name: Carrie E. Carlander
Title: Chief Financial Officer

KNOWN ALL MEN BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Evan M. Levine and Carrie E. Carlander, 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, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ M. Ross Johnson M. Ross Johnson, Ph.D.	Director, Chairman of the Board	May 4, 2006
/s/ Evan M. Levine Evan M. Levine	Director, Chief Executive Officer and President (Principal Executive Officer)	May 4, 2006
/s/ Carrie E. Carlander Carrie E. Carlander	Chief Financial Officer, Senior Vice President, Finance, Treasurer and Secretary (Principal Financial Officer)	May 4, 2006
/s/ Robert A. Daniel Robert A. Daniel	Controller (Principal Accounting Officer)	May 4, 2006
/s/ Michael M. Goldberg Michael M. Goldberg, M.D.	Director	May 4, 2006
/s/ Mark J. Pykett Mark J. Pykett, V.M.D., Ph.D.	Director	May 4, 2006
/s/ Mark Bagnall Mark Bagnall	Director	May 4, 2006
/s/ Keith Meister Keith Meister	Director	May 4, 2006

Exhibit Index

Exhibit Number	Description
2.1	Agreement and Plan of Merger by and among ADVENTRX Pharmaceuticals, Inc., Speed Acquisition, Inc., SD Pharmaceuticals, Inc., the Founders (as defined in said Agreement and Plan of Merger) and The Stockholder Representative Dated as of April 7, 2006 and exhibits thereto (14)
3.1	Amended and Restated Certificate of Incorporation (1)
3.2	Amended and Restated Bylaws of the Registrant (2)
4.1	Specimen common stock certificate (3)
4.1	Stock Purchase Agreement (4) (7)
4.2	Form of Warrant (4) (8)
4.3	Form of Warrant (4) (9)
4.10	Registration Rights Agreement (4) (10)
4.19	Warrant to Purchase Common Stock issued by the Registrant (4) (5)
4.20	Stock Subscription Agreement (4) (11)
4.21	Warrant to Purchase Common Stock issued by the Registrant (4)(6)
4.35	Stock Purchase Agreement (12)
4.36	Letter agreement between Biokeys Pharmaceuticals, Inc. and Emisphere Technologies, Inc. dated April 12, 2002
4.37	Modification dated August 5, 2002 to Letter agreement between Biokeys Pharmaceuticals, Inc. and Emisphere Technologies, Inc. dated April 12, 2002
4.38	Warrant to Purchase Common Stock issued on April 12, 2002 to Emisphere Technologies, Inc.
5.1	Opinion of Bingham McCutchen LLP
23.1	Consent of J. H. Cohn LLP (as to reports regarding the registrant)
23.2	Consent of J. H. Cohn LLP (as to report regarding SD Pharmaceuticals Inc.)
23.3	Consent of Bingham McCutchen LLP (included in Exhibit 5.1)
24	Power of Attorney (filed as part of signature page to Registration Statement)

(1) Incorporated by reference to exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005.

(2) Incorporated by reference to exhibit 3.6 to the Registrant's Registration Statement on Form 10-SB, filed October 2, 2001, as amended.

(3) Incorporated by reference to same-numbered exhibit to the Registrant's Registration Statement on Form S-3 filed August 26, 2005 (File No. 333-127857).

(4) Incorporated by reference to same-numbered exhibit to the Registrant's Registration Statement on Form S-3 filed June 30, 2004 (File No. 333-117022).

(5) This form of warrant was issued to the following selling securityholders named in Part I of this Registration Statement: Robert J. Neborsky M. Inc. Combination Retirement Trust (by transfer from original investor Craig Pierson)

(6) This form of warrant was issued to the following selling securityholders named in Part I of this Registration Statement: Angeliki Frangou, Robert J. and Sandra S. Neborsky JTWROS (by transfer from original investor VP Bioventures), Robert J. Neborsky (by transfer from original investor VP Bioventures), and SDS Capital Group SPC, Ltd. (by transfer from original investor SDS Merchant Group).

(7) This Stock Purchase Agreement was signed by the following selling securityholders named in Part I of this Registration Statement: LB (Swiss) Privatbank AG and North Sound Legacy Institutional Fund LLC (by transfer from original investor North Sound Legacy Fund LLC).

(8) This form of warrant was issued to the following selling securityholders named in Part I of this Registration Statement: LB (Swiss) Privatbank AG, and North Sound Legacy Institutional Fund LLC (by transfer from original investor North Sound Legacy Fund LLC).

(9) This form of warrant was issued to the following selling securityholders named in Part I of this Registration Statement: LB (Swiss) Privatbank AG, and North Sound Legacy Institutional Fund LLC (by transfer from original investor North Sound Legacy Fund LLC).

(10) This form of registration rights agreement was issued to the following selling securityholders named in Part I of this Registration Statement: LB (Swiss) Privatbank AG, and North Sound Legacy Institutional Fund LLC (by transfer from original investor North Sound Legacy Fund LLC).

(11) This form of stock subscription agreement, which includes a registration rights provision, was issued to the following selling securityholders named in Part I of this Registration Statement: Angeliki Frangou, Robert J. and Sandra S. Neborsky JTWROS (by transfer from original investor VP Bioventures), Robert J. Neborsky (by transfer from original investor VP Bioventures), and SDS Capital Group SPC, Ltd. (by transfer from original investor SDS Merchant Group).

(12) This form of stock subscription agreement, which includes a registration rights provision, was issued to the following selling securityholders named in Part I of this Registration Statement: Robert J. Neborsky M. Inc. Combination Retirement Trust (by transfer from original investor Craig Pierson) and Jonathan Balk.

(13) The Agreement and Plan of Merger provided for the issuance of the registrant's common stock and for registration rights to the following selling securityholders named in Part I of this Registration Statement: Marangos Family Trust, dated 1995, Chen Family Trust, dated 2000, DLA Piper Rudnick Gray Cary US LLP, SEED Intellectual Property Law Group, PLLC, Costas Loullis, Gail Loullis, Wen Bo Hu, James A. Rock, Horace Hertz, Jack Luchese, James Ueberroth, Tzu-Ping Richard Lin, Thanh Nguyen, Dee Conger.

(14) Incorporated by reference to Exhibit 2.1 to Amendment No. 1 to the Registrant's Current Report on Form 8-K dated April 7, 2006.f

Exhibit 4.35

STOCK SUBSCRIPTION AGREEMENT

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

This letter represents an agreement between the undersigned (the ***"Investor"***) and Biokeys 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: _____
(Exact name as it should appear on the stock certificate.)

Price per share of Common Stock (the ***"Purchase Price"***): Forty Cents ($0.40)

Number of shares of Common Stock: _____

Total Purchase Price: _____

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.

(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.

(I) 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.

(a) Sales of Common Stock. 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 number of shares of Common Stock issued to the Investor pursuant to this Section 8(a) prior to the date of such determination.

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

$$X = (A / B) – C$$

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 = Twenty Cents ($0.20); and
- C = the number of Shares held by the Investor.

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.

(b) Change of Control. If a Change of Control (as that term is defined below) is consummated prior to the date that is one year after the Acceptance Date pursuant to which the Investor, by virtue of its ownership of the Shares, is entitled to receive, either out of the assets and funds of the Company available for the distribution to the holders of Common Stock or from the acquiring entity or person, aggregate consideration (the ***"Acquisition Consideration"***) with a value less than the product of (x) the number of Shares held by the Investor immediately prior to the Change of Control and (y) the Purchase Price, then the Company will issue to the Investor, immediately prior to the consummation of the Change of Control, a number of shares, if positive, of Common Stock determined by the following formula:

X = (A/B*C) - (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 Acquisition Consideration;

C = the number of Shares held by the Investor; and

D = the number of shares of Common Stock issued to the Investor pursuant to Section 8(a)

For purposes of this Agreement, the term ***"Change of Control"*** means (i) a sale or disposition of all or substantially all of the assets of the Company, and (ii) a merger or consolidation of the Company with or into any other corporation or corporations or other entity, or any other corporate reorganization, or any transfer of beneficial ownership (within the meaning of Rule 13d-3 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended), directly or indirectly, of the outstanding shares of capital stock of the Company, in a single transaction or a series of related transactions where the shareholders of the Company immediately prior to such transaction or series of related transactions do not retain at least fifty percent (50%) of the voting power in the Company or any successor or acquiring entity (as applicable).

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 conflicts 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:	Biokeys 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 or in any other agreement, certificate or instrument provided for or contemplated hereby, 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) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

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

INVESTOR:

By: _____
(signature)

Name: _____
(please print)

Title: _____
(if applicable)

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

BIOKEYS PHARMACEUTICALS, INC.

By: _____
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 Biokeys 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:	Biokeys, 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:	Biokeys, 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

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

I. INDIVIDUAL INVESTORS ONLY

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: _____

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: _____

Employment Information

Occupation: _____

Number of Years: _____

Present Employer: _____

Position/Title: _____

Business Address: _____

Business Telephone: _____

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 _____

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 form 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.

11. ENTITY INVESTORS ONLY

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: _____

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: _____
(signature)

Name: _____
(please print)

ENTITY INVESTOR:

By: _____
(signature)

Name: _____
(please print)

Title: _____
(please print)

Exhibit 4.36

Biokeys Pharmaceuticals, Inc
333 N. Sam Houston Pkway, Suite 1035
Houston, TX 77060
(281) 272-0000 T
(281) 272-1149 F

April 12, 2002

BY FEDERAL EXPRESS
Emisphere Technologies, Inc.
765 Old Saw Mill River Road
Tarrytown, NY 10591
Attention: Dr. Michael Goldberg, Chairman and Chief Executive Officer

Re: Preliminary Agreement

Dear Dr. Goldberg;

This will confirm the terms of our recent discussions concerning an agreement between Emisphere Technologies, Inc. ("ETI") and Biokeys Pharmaceuticals, Inc. ("BPI"), as follows:

1. Purchase of Series B Convertible Stock. ETI hereby purchases and BPI agrees to issue and sell 200,000 shares of a new class of Series B Convertible Preferred Stock, $0.01 par value, at a purchase of $1.50 per share or a total purchase price of $300,000. The purchase price shall be paid by wire transfer.

2. Terms of Series B Preferred Stock. The Series B Preferred Stock will have a liquidation preference of $1.50 per share and will be convertible into Common Stock on a share-for-share basis.

3. Warrants. In addition to the issuance to the preferred stock, BPI agrees to issue to ETI five-year warrants for the purchase of BPI Common Stock at an exercise price of $2.40 per share, with 25% warrant coverage.

4. Registration Rights. BPI agrees to register the shares of Common Stock underlying the Series B preferred stock and the warrants within six months of the date hereof. If BPI does not complete such registration within such six month period, ETI will have a one-time demand registration right beginning at the end of such six month period, and BPI shall cause such registration statement to be prepared and filed and use its best efforts to make same effective promptly.

5. Option for Additional Investment. BPI hereby grants ETI the option, exercisable during a period of 60 days commencing with the date of this Agreement, to purchase up to an additional $4,000,000 of Series B Preferred Stock on the same terms and conditions on those set forth above. Such option shall be exercisable by ETI's written notification to BPI stating the amount of Preferred B Stock it elects to purchase, which purchase shall include warrants at 25% warrant coverage, on the same terms as set forth above.

6. Improvement of Terms. If, at any time during the next 60 days, BPI receives an offer from an investor or investor group to purchase BPI equity on terms more advantageous to such investor than those set forth in this Agreement with the respect to ETI, the terms and conditions stated in this letter with respect to ETI's investment shall be amended within ten (10) days of receipt of said offer so that they are the equivalent of such improved terms, and BPI shall execute and deliver any documents required to reflect such improved terms with respect to the Series B Stock and the Warrants.

7. Option to Serve as Preferred Provider. During the next 60 days, ETI shall have a right of first refusal to serve as the preferred provider for any enhancement of any BPI product requiring an oral delivery system, and such option period to serve as a preferred provider shall be extended for a period of two years from the date that ETI makes an investment of at least $2,000,000 in BPI in accordance with Paragraph 5 above.

8. More Detailed Agreements. This Agreement is intended to serve as a preliminary agreement, and the parties contemplate that it will be replaced with more detailed and definitive agreements to be prepared by the parties and their attorneys within twenty (20) days from the date of execution of this agreement. However, until such detailed definitive agreements are concluded, this agreement will represent the agreement of the parties.

9. Jurisdiction and Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, applicable to contracts to be fully performed within the State of New York, without regard to the conflicts of low principles thereof. Any controversy or claim arising out of or relating to this Agreement or the breach thereof, whether involving remedies at law or in equity, shall be adjudicated in New York. The parties consent to personal jurisdiction, service and venue in any Federal or State Court within the Stale of New York.

We look forward to a close and productive relationship between our two companies. Please sign and return a copy of this letter to indicate your consent,

Sincerely yours,

BIOKEYS PHARMACEUTICALS, INC.

BY: /s/ Nicholas J. Virca
President

AGREED:

EMISPHERE TECHNOLOGIES, INC.

By: /s/ Michael M. Goldberg
Authorized Officer

Biokeys Prelim

Exhibit 4.37

Kurzman Eisenberg Corbin Lever & Goodman, LLP
Attorneys at Law
675 Third Avenue
New York, NY 10017

Tel: (212) 661-2150
Fax: (212) 949-6131

FACSIMILE TRANSMITTAL SHEET

To: Warren Lau; Steven Plumb

Company: Biokeys Pharmaceuticals, Inc.

Fax No.: 281/272-1149 ; 800/861-1175

Tel. No.: 281/272-0000 ; 713/729-606216

From: Seymour H. Bucholz

Date: 8/16/02

Re: Emisphere ~~test~~ Draft

Number of Pages INCLUDING THIS PAGE: 2
(If you do not receive all pages, call (212) 661-2150)

Client/Matter No.: 56000-0000

Message: Please see attached

☐ Original Will Not Follow.
☐ Original Will Follow: ☐ by mail ☐ by hand ☐ by overnight courier

Biokevs Pharmaceuticals, Inc.

Description of Transaction with Emisphere Technologies, Inc.

In April 2002, the Company entered into a preliminary agreement (the "Preliminary Agreement") with Emisphere Technologies, Inc. ("ETI") under which ETI agreed to subscribe for 200,000 shares of a new class of Series B Convertible Preferred Stock to be authorized and issued by the Company. The Preliminary Agreement contemplated an initial subscription payment of $300,000, which was received by the Company, with a 60-day option to purchase up to an additional $4,000,000 of Series B Preferred Stock. The subscription by ETI was also to include the issuance 5-year warrants entitling ETI to purchase up to 50,000 shares of the Company's Common Stock at an exercise price of $2.50 per share for the same $300,000 initial subscription payment. The Company also granted ETI a 60-day right of first refusal to serve as a provider of an oral delivery system for a Company product requiring such a system, which period was extendable for an additional two years if ETI subscribed for at least $2,000,000 of additional Series B Convertible Shares, plus certain registration rights.

The Preliminary Agreement was to be replaced with more detailed and definitive agreements. However, the Company and ETI have not prepared such definitive agreements, and ETI has not exercised its options to subscribe to additional Series B Preferred Stock or to serve as a provider of oral delivery enhancement technology. Accordingly, the Company will be required to issue 200,000 shares of the Series B Convertible Preferred Stock and 50,000 warrants to ETI, which issuance will take place before the end of the current fiscal year.

********** -COMM. JOURNAL- ********** DATE AUG-06-2002 ***** TIME 15:47 *********

MODE = TRANSMISSION START=AUG-06 15:46 END=AUG-06 15:47

FILE NO.=903

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-KECLG, LLP ***NY*** -

********** -NYC OFFICE - ***** - 212 949 6131- *********

********** -COMM. JOURNAL- ********** DATE AUG-06-2002 ***** TIME 15:48 *********

MODE = TRANSMISSION START=AUG-06 15:47 END=AUG-06 15:48

FILE NO.=904

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-KECLG, LLP ***NY*** -

********** -NYC OFFICE - ***** - 212 949 6131- *********

Exhibit 4.38

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 QUALIFIED UNDER ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR QUALIFICATION 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 ANY REGISTRATION OR QUALIFICATION REQUIREMENTS UNDER APPLICABLE STATE SECURITIES LAWS.

No. WC-303 **Dated as of April 12, 2002**

WARRANT TO PURCHASE COMMON STOCK

This certifies that, for good and valuable consideration, **Emisphere Technologies, Inc.** (the ***"Holder"***) is entitled to purchase from ADVENTRX Pharmaceuticals, Inc., a Delaware corporation formerly known as Biokeys Pharmaceuticals, Inc. (the ***"Company"***), **Fifty Thousand (50,000)** 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. Exercise; Payment.

(a) Exercise Period. This Warrant may be exercised in whole or part by the Holder during the term (as set forth in Section 9) and in compliance with the provisions of this Warrant at any time after the date of issuance set forth above (the ***"Warrant Date"***), 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) Means of 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 cashier's check payable to the order of the Company. The Holder shall be deemed to have become the

holder of record of, and shall be treated for all purposes as the record holder 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.

(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.

2. Stock Fully Paid; Reservation of Shares. All of the Warrant Shares issuable upon the exercise 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 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 payable 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 immediately prior to 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) 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 five-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 five-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 10(d).

4. Transfer of Warrant and Resale of Warrant Shares.

(a) 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 of Directors of the Company.

(b) At the time of the surrender of this Warrant in connection with any transfer of this Warrant or the resale of the Warrant Shares, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant or the Warrant Shares 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 of 1933, as amended (the ***"Securities Act"***) or qualification under any state securities laws, (ii) that the Holder or transferee execute and deliver to the Company an investment representation letter in form and substance acceptable to the Company and substantially in the form of 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 Holder a new warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall be deemed cancelled. 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 and a prospectus meeting the requirements of Section 11 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) under the Securities Act 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 and that upon such sale, transfer or assignment such Warrant Shares will not be deemed "restricted securities," as such term is defined in Rule 144 under the Securities Act.

6. Fractional Shares. No fractional Warrant Shares will be issued in connection with any exercise of this Warrant, 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. Rights of Stockholders. The Holder shall not be entitled 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 of this Warrant 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 of this Warrant shall have become deliverable, as provided in this Warrant.

8. 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 for the sale of securities to participants in a Company stock or other incentive plan or 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 this Section 8, use commercially reasonable efforts to cause to be registered for resale under the Securities Act all of the Warrant Shares that the Holder has requested to be registered on such registration statement, provided, that the Company shall have no obligation to register such shares if applicable rules, regulations or other requirements of the Securities and Exchange Commission prohibit the Company from including such Warrant Shares on such registration statement on the form thereof used by the Company or require that the registration statement be for (or meet all of the requirements of) a primary offering if such registration statement pertains to a secondary offering.

(b) Underwriting. If the registration statement under which the Company gives notice under this Section 8 is for an underwritten Public Offering, the Company shall so advise the Holder. The right of the Holder to registration pursuant to Section 8(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 8, 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 8 that the Holder shall promptly 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 8.

(e) Termination of Registration Rights. The Company shall have no obligation to register Warrant Shares pursuant to this Section 8 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 Securities Act.

9. (a) 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; (ii) immediately prior to the consummation of 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 Section 9(a), the Company may, by at least 10-days' prior written notice to the Holder (the ***"Termination Notice"***) which Termination Notice shall state the date this Warrant shall terminate (the ***"Call Termination Date"***), shall terminate this Warrant, at any time, provided that the average Market Price over a 10-consecutive-trading-day period is equal to or greater than the product of (x) 2 multiplied by (y) the Exercise Price, provided, however, that the Company may not deliver a Termination Notice unless a registration statement registering the Warrant Shares has been declared effective and is effective from the date of delivery of the Termination Notice until the date this Warrant shall terminate as set forth in the Termination Notice. Nothing in this Section 9 shall prevent the exercise of the Warrants at any time prior to the termination of this Warrant. For purposes of this Section 9(b) the term ***"Market Price"*** means (i) the closing price of a share of Common Stock on the principal stock exchange or market (including the Nasdaq National Market, AMEX, OTCCBB and NYSE) on which shares of Common Stock are then listed or admitted to trading, or quoted, as applicable (the ***"Listing Market"***), or (ii) if no sale takes place on such day on the Listing Market, the last reported closing price on the Listing Market.

10. 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 (i) upon receipt, when delivered personally, (ii) one day after sending, when sent by commercial overnight courier with written verification of receipt, (iii) upon confirmed transmission when sent via facsimile on a business day prior to 5:00 pm (Pacific time) or, if sent after 5:00 pm (Pacific time), the next business day after confirmed transmission or (iv) three business days after deposit with the United States Postal Service, when mailed postage prepaid by certified or registered mail, return receipt requested, addressed, if to the Company, at 6725 Mesa Ridge Road, Suite 100, San Diego, CA 92121, (f) (858) 552-0876, Attention: President, 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 10(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.

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer, all as of the day and year first above written.

ADVENTRX Pharmaceuticals, Inc.,
a Delaware corporation formerly known as
Biokeys Pharmaceuticals, Inc.

By: /s/ Evan M. Levine
Evan M. Levine
President & CEO

EXHIBIT A

NOTICE OF EXERCISE

TO: ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, CA 92121

The undersigned hereby elects to purchase ___shares of Common Stock, par value $0.001 per share (***"Common Stock"***), of ADVENTRX Pharmaceuticals, Inc., a Delaware corporation formerly known as Biokeys Pharmaceuticals, Inc. (the ***"Company"***) pursuant to the terms of Section 1(b) of the Warrant to Purchase Common Stock dated April 12, 2002, (the ***"Warrant"***), and tenders herewith payment of the Exercise Price (as such term is defined in the Warrant) therefor.

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.

_____

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 owner of this Warrant for the purchase of shares of Common Stock of ADVENTRX Pharmaceuticals, Inc., a Delaware corporation formerly known as Biokeys Pharmaceuticals, Inc. (the ***"Company"***) 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.

Exhibit 5.1

May 4, 2006

ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, California 92121

Attention: Ms. Carrie E. Carlander
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 stockholders. The Shares were issued a) on April 26, 2006 upon the closing of the Company's merger with SD Pharmaceuticals, Inc. pursuant to the Agreement and Plan of Merger by and among ADVENTRX Pharmaceuticals, Inc., Speed Acquisition, Inc., SD Pharmaceuticals, Inc., the Founders (as defined in said Agreement and Plan of Merger) and The Stockholder Representative Dated as of April 7, 2006; or b) in prior private financings by the Company or have been or will be issued upon exercise of warrants issued in such private financings.

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.

As counsel to the Company, in rendering the opinions hereinafter expressed, we have examined and relied upon originals or copies, certified or otherwise authenticated to our satisfaction, of such corporate records, agreements,

documents and instruments as we have deemed necessary or advisable for purposes of this opinion, including the following documents and instruments:

A. The Certificate of Incorporation of the Company, as amended, certified by the Delaware Secretary of State on April 18, 2006.

B. A Certificate of Good Standing of the Company, issued by the Delaware Secretary of State on April 17, 2006.

C. The By-Laws of the Company, certified by the Secretary of the Company on May 4, 2006.

D. Records of proceedings and actions of the Board of Directors of the Company, certified by the Secretary of the Company on May 4, 2006.

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 and applicable provisions of the Delaware Constitution, as applied by courts located in Delaware (collectively, the “Law”), and the reported judicial decisions interpreting the Law.

Subject to the foregoing, it is our opinion that such of the Shares as have been issued have been duly authorized and are legally and 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 any prospectus constituting a part of 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 Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/BINGHAM McCUTCHEN LLP
BINGHAM McCUTCHEN LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our reports dated March 10, 2006 on our audits of the consolidated financial statements of ADVENTRX Pharmaceuticals, Inc. and Subsidiary as of December 31, 2005 and 2004 and for each of the years in the three-year period ended December 31, 2005 and for the period from June 12, 1996 (date of inception) to December 31, 2005, and on our audits of the effectiveness of the Company's internal control over financial reporting and of management's assessment of the Company's internal control over financial reporting as of December 31, 2005, which reports appear in the Annual Report on Form 10-K of ADVENTRX Pharmaceuticals, Inc. for the year ended December 31, 2005. We also consent to the reference to our firm under the caption "Experts."

/s/ J.H. Cohn LLP

San Diego, California
April 27, 2006

Exhibit 23.2

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 April 14, 2006 on our audits of the financial statements of SD Pharmaceuticals, Inc. as of December 31, 2005 and 2004 and for the year ended December 31, 2005 and for the period from June 16, 2004 (date of inception) to December 31, 2004, which report is included in ADVENTRX Pharmaceuticals, Inc's From 8-K/A filed on May 1, 2006. We also consent to the reference to our firm under the caption "Experts."

/s/ J.H. Cohn LLP

San Diego, California
April 27, 2006