PHARMANETICS INC Form S-3/A July 30, 2003 Table of Contents

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JULY 30, 2003

REGISTRATION STATEMENT NO. 333-106087

SECURITIES AND EXCHANGE COMMISSION

AMENDMENT NO. 1 TO FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

PHARMANETICS, INC.

(Exact name of registrant as specified in its charter)

North Carolina (State or other jurisdiction

56-2098302 (I.R.S. Employer

of incorporation or organization)

Identification No.)

9401 Globe Center Drive, Suite 140

Morrisville, North Carolina 27560

 $(Address, including\ zip\ code, and\ telephone\ number, including\ area\ code, of$

registrant s principal executive offices)

John P. Funkhouser

President

PharmaNetics, Inc.

9401 Globe Center Drive, Suite 140

Morrisville, North Carolina 27560

(919) 582-2600

(Name, address, including zip code, and telephone number, including area code,

of agent for service)

COPIES TO:

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Wyrick Robbins Yates & Ponton LLP

4101 Lake Boone Trail, Suite 300

Raleigh, North Carolina 27607

(919) 781-4000

Fax (919) 781-4865

Approximate Date Of Proposed Sale To The Public:

From time to time after this registration statement becomes effective.

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

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

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

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

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

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete. It might change. We cannot sell these securities until the registration statement that we have filed with the SEC is effective. This prospectus is not an offer to sell, nor does it solicit offers to buy, these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated July 30, 2003

2,472,364 SHARES

PHARMANETICS, INC.

COMMON STOCK

The shareholders of PharmaNetics, Inc. listed herein are offering and selling from time to time up to 2,472,364 shares of our common stock under this resale prospectus. We will not receive any proceeds from the sale of the shares.

Our common stock is traded on the Nasdaq National Market under the symbol PHAR. On July 28, 2003, the last sale price of our common stock on the Nasdaq National Market was \$4.93 per share.

The selling shareholders may offer the shares through public or private transactions, on or off the Nasdaq National Market, at prevailing market prices or at privately negotiated prices. See Plan of Distribution.

Investing in our common stock involves risks. See Risk Factors beginning on page 6.

Neither the SEC nor any state securities commission has approved or disapproved our securities or determined that this prospectus is truthful or complete. It is illegal for anyone to tell you otherwise.

The date of this prospectus is July , 2003.

Prospectus Summary

About our company

Our company develops, manufactures and markets rapid diagnostics to dose, manage and screen patients on drugs affecting coagulation. Our products are a proprietary analyzer and dry chemistry tests and controls, known as the Thrombolytic Assessment System, or TAS, that provide a physician, at the point of patient care, information that can affect therapy. We are establishing ourself in this emerging field of theranostics, defined as rapid near-patient testing in which the diagnostic results may influence treatment decisions. Our current tests and tests under development are used in the treatment of a variety of adverse conditions caused by abnormal blood clotting in different areas of the body, including angina, heart attack, stroke, deep vein thrombosis and pulmonary and arterial emboli.

Our TAS analyzer is a stat, or as soon as possible , point-of-care system capable of monitoring the formation and dissolution of blood clots. This monitoring provides information which is critical to health care providers in administering drugs that either prevent the formation of blood clots or dissolve them, both of which are used in the treatment of a variety of medical disorders. Blood clotting, or hemostatic, test results must be provided quickly because a majority of the drugs used to regulate clotting are cleared rapidly from the body, and certain drugs must be closely monitored to maintain drug levels within an effective treatment range. We believe that hospital central and stat laboratories, which currently provide the majority of this testing, generally cannot provide timely information to clinicians regarding drugs that affect the formation and dissolution of blood clots. Delay in providing such information can be a problem because the physician is likely to leave the patient area during this time, which may result in a further delay of diagnosis and treatment. We believe that our TAS analyzer can provide critical information regarding the formation and dissolution of blood clots as well as drug monitoring on a timely basis, permitting quicker diagnosis and therapeutic intervention, which will improve therapy and the quality of patient care. We believe that this improvement may facilitate quicker transfers out of expensive critical care settings, reduce the overall length of hospital stays, reduce expenditures for laboratory equipment and its associated maintenance, and reduce the unnecessary use of drugs. In addition, point-of-care testing can reduce hospitals costs by reducing the numerous steps, paperwork and personnel used in collecting, transporting, documenting and processing blood samples.

We currently sell domestically and internationally our TAS analyzer and a menu of tests and controls. We currently have seven FDA-approved tests that are currently sold for commercial use. We have sold three other tests—for investigational use only. In addition, we have obtained a special FDA approval for humanitarian devices for one of our test cards used in managing patients suffering from heparin induced thrombocytopenia, a condition characterized by persistent decrease in blood platelets resulting from the administration of the anti-clogging drug, heparin. This special approval is an expedited FDA authorization process to market devices used in rare disease states where no existing solution is available. In addition, we are currently researching and developing other test cards for use on our TAS analyzer.

The TAS analyzer weighs approximately four pounds and is about the size of a typical office telephone. The analyzer and test cards are designed to work effectively in a decentralized testing environment where they are used by healthcare personnel who do not need formal central laboratory training. Typically within three minutes of inserting a test card with a single drop of blood or plasma into the analyzer, the screen on the TAS analyzer displays a numerical test result, which is comparable to the result which would be achieved in a central laboratory using traditional testing procedures. Our distributor, Bayer Diagnostics, currently markets this product as the Rapidpoint Coag analyzer.

Our Accent product is a microprocessor-based hardware accessory to the TAS analyzer. It connects to the TAS analyzer and automatically calculates the information required by physicians to manage the anticoagulation of patients on heparin during cardiopulmonary bypass procedures. It is used in conjunction with three of our test cards and is marketed by Bayer as Rapidpoint ACCENT.

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The following describes our test cards that have been cleared by the FDA:

Our enoxaparin test, or Enox test, detects the anticoagulant effect of enoxaparin, a low molecular weight heparin drug used for the treatment and prevention of blood-clotting diseases. Enoxaparin is the world s top-selling low molecular weight heparin and is marketed by Aventis Pharmaceuticals in the United States under the brand name Lovenox® and outside of the United States under the brand name Clexane®.

Our PT test is a general screening test that is used to assess a patient s baseline blood-clotting function or to monitor the use of oral anticoagulants, such as warfarin. Warfarin is widely used in the United States for long-term treatment in patients who have previously developed clots, including after heart attacks, to inhibit clot formation and reduce the risk of developing additional clots. Physicians use our PT test to monitor and maintain drug levels within a safe treatment range.

Our aPTT test is a coagulation-screening test which may be used in conjunction with our PT test to provide a global assessment of a patient s ability to form a blood clot. In addition, our aPTT test is used to monitor heparin, an injectable anticoagulant. Hospitals routinely use heparin as the initial treatment for patients with a blood clot, including patients suffering from heart attacks or strokes. Heparin also prevents blood clots from forming in patients undergoing procedures involving particular risks of clotting, such as angiography, open heart surgery, dialysis and several other surgeries. Heparin must be closely monitored to assure adequate anticoagulation without increasing the risk of developing a bleeding complication.

Because aPTT tests are generally incapable of monitoring high levels of heparin, we have developed and are marketing our HMT test for monitoring patients requiring high dose heparin therapy during procedures such as open heart surgery or dialysis. In addition, we have two more test cards that we combine with our HMT test to provide a system for individualized heparin management during cardiac surgery.

Our LHMT card is used principally in cardiac catheterization and interventional cardiology procedures. It is designed to monitor the effects of concentrations of heparin above the range measured by our aPTT card but below that of our HMT card.

Our ECT card is used to manage patients suffering from heparin-induced thrombocytopenia.

The FDA s approval for this test only allows the use of the test for managing patients who receive Refludah, an anticoagulant drug marketed by Pharmion and Berlex for patients undergoing cardiopulmonary bypass surgery.

In August 1998, we signed a five-year global distribution agreement with Chiron Diagnostics, now part of Bayer Diagnostics, to distribute six of our test cards. We have since expanded our relationship with Bayer to cover billing and collection for our Enox test in the United States. This arrangement enables a customer to order all of our products from a single source.

We also market our TAS analyzer and related products in Europe and other foreign countries. Bayer Diagnostics is our exclusive distributor for all our products in these territories. We believe that Bayer Diagnostics has a strong global presence and that its strategy for expanding rapid diagnostic platforms into critical care settings and its considerable presence in these specialized areas of the hospital will lead to increased

placements of our products. We also believe that our products are complementary with Bayer Diagnostics leading position in blood gas analysis.

We have a collaborative marketing program with Aventis relating to the Enox test that entails coordinating sales, marketing and educational efforts to promote the use of the test in the United States. We believe the Enox test may provide physicians with a tool to more confidently prescribe Aventis drug enoxaparin for all of their patients, because they can assess the anticoagulant state of patients who could be sent to the catheterization laboratory.

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To further the goal of establishing ourself in the emerging field of theranostics, we have entered into development agreements with major pharmaceutical companies such as The Medicines Company and Knoll AG, now part of Abbott Laboratories, under which we are developing test cards for potential use in patient identification and monitoring of therapies affecting coagulation being investigated by these companies. We are focused on becoming a leader in the theranostic testing market, specifically managing new therapeutics that affect coagulation. Many drugs currently under development may require faster, more accurate assessment, given short half-lives and narrow therapeutic windows, and thus we believe physicians will increasingly demand therapeutic drug monitoring. Our strategy is to increase our number of collaborations, expand current collaborations, increase involvement of leading research centers and physician thought leaders and further the involvement of Bayer in working with other pharmaceutical companies to engage in outcome studies related to new theranostic tests.

Our principal executive offices are located at 9401 Globe Center Drive, Suite 140, Morrisville, North Carolina 27560. Our telephone number at that location is (919) 582-2600. Information contained on our website, www.pharmanetics.com, is not a part of this prospectus.

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The Offering

Shares of common stock offered by us None Shares of common stock which may be sold by the selling shareholders 2,472,364(1) Use of proceeds We will not receive any proceeds from the resale of shares offered hereby, all of which proceeds will be paid to the selling shareholders Risk factors The purchase of our common stock involves a high degree of risk. You should carefully review and consider Risk Factors beginning on page 6. Nasdaq National Market Trading Symbol **PHAR**

⁽¹⁾ Consists of: (a) 1,619,661 shares of common stock issuable upon conversion of currently outstanding shares of Series B preferred stock; (b) 542,865 shares of common stock issuable upon exercise of warrants; and (c) 309,838 shares of common stock issuable upon the exercise of Series B Preferred Stock that we are required to issue in payment of in-kind dividends on our Series B preferred stock through September 2005.

Risk Factors

You should be aware that there are various risks to an investment in our common stock, including those described below, which are all the materials risks known to us at this time. You should carefully consider these risk factors, together with all of the other information included in this prospectus, before you decide to invest in shares of our common stock.

We expect continued losses, which could have an adverse impact on your investment.

We anticipate that we will continue to incur losses and negative operating cash flows for the foreseeable future. For the year ended December 31, 2000 our net loss was \$10.0 million, for the year ended December 31, 2001 it was \$9.2 million and for the year ended December 31, 2002 it was \$11.6 million. As of March 31, 2003, we had incurred cumulative losses since inception of approximately \$61.0 million. Since our inception as a public company, we have reported operating losses and operating cash flow deficits as we organized and launched our business operations. During this period, we incurred significant operating expenses and made significant investments in our business without an established source of revenue. We will continue to be required to spend substantial funds to continue our development and marketing activities, including support for the launch of our Enox test card. There can be no assurance that our business plan, when fully implemented, will generate sufficient revenue to make us profitable.

Failure to raise additional capital, as and when needed, could prevent us from executing our business strategy and could prevent us from maintaining compliance with Nasdaq listing standards.

In the near future, we may need to raise additional funds through public or private sale of our equity or debt securities or from other sources for the following purposes:

to build our core business; and,

to maintain compliance with Nasdaq listing requirements.

As of the date of this filing, we believe we have sufficient capital to fund operations for at least the next 18 months. However, we may need to raise additional capital to support operations and execute our business strategy, including the launch of our Enox test card and roll-out of the associated sales and support staff. We cannot assure you that additional funds will be available when we need them, or that if funds are available, they will be on terms favorable to us and our shareholders. If we are unable to obtain sufficient funds or if adequate funds are not available on terms acceptable to us, we may be unable to meet our business objectives. A lack of sufficient funds could also prevent us from taking advantage of important opportunities or being able to respond to competitive conditions. Any of these results could have a material adverse effect on our business, financial condition and results of operations.

If we raise additional capital, your investment might be diluted or otherwise adversely affected.

Our need to raise additional funds could also directly and adversely affect your investment in our common stock in another way. When a company raises funds by issuing shares of stock, the percentage ownership of the existing shareholders of that company is reduced or diluted. If we raise funds in the future by issuing additional shares of stock, you may experience significant dilution in the value of your shares. Additionally, certain types of equity securities that we may issue in the future, such as our currently outstanding shares of Series A and Series B preferred stock, could have rights, preferences or privileges senior to your rights as a holder of our common stock, which could adversely affect your investment.

Our products have not achieved and might not achieve market acceptance in an essentially new market, which would limit our revenue.

The commercial success of our products, and the amount of revenue they might generate, will depend upon their acceptance by the medical community as being useful and cost-effective. Market acceptance will depend

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upon several factors, including the establishment of the utility and cost-effectiveness of our tests and the receipt of regulatory clearances in the United States and elsewhere. The availability of point-of-care hemostasis test systems has been limited to date, so by selling point-of-care hemostasis test products, we are targeting an essentially new market. Diagnostic tests similar to those developed by us are generally performed by a central laboratory at a hospital or clinic. The approval of the purchase of diagnostic equipment by a hospital has historically been controlled by its central laboratory. We expect there will be resistance by central laboratories to yield control of tests they have previously performed. We will also have to demonstrate to physicians that our diagnostic products perform as intended, meaning that the level of accuracy and precision attained by our products must be comparable to test results achieved by central laboratory systems. Failure of our products to achieve market acceptance would have a material adverse effect on our revenue and therefore our profitability.

We are substantially dependent on Bayer Diagnostics, our principal distributor, and on other distributors for revenue.

We are substantially dependent on Bayer Diagnostics as our principal distributor for marketing and distribution of our products, and therefore for revenue. Bayer Diagnostics is our exclusive distributor in Europe and other foreign countries, and our primary distributor in the United States. Revenue from Bayer Diagnostics accounted for 94%, 63% and 78% of our total revenue in 2002, 2001 and 2000, respectively. Our distribution agreement with Bayer Diagnostics expires in December 2003, subject to renewal thereafter for successive five-year terms, and Bayer Diagnostics can terminate the agreement if we become insolvent, materially breach the agreement or engage in a change in control. The agreement does not provide for guaranteed minimum purchases. If Bayer fails to renew, terminates or does not perform as expected under the agreement, our revenue will be adversely affected and we might have to hire, train and retain another distributor or our own sales force, which could be expensive and time-consuming, further adversely affecting revenue and our financial position.

We also have a collaborative marketing program with Aventis relating to our Enox test, and intend to pursue other similar arrangements. If Aventis terminates this program or does not perform as expected, or we are unable to enter into successful other similar arrangements in the future, our revenue for the relevant tests will be adversely affected.

Intense competition and the risk of technological obsolescence might render our products noncompetitive, which would limit our revenue.

The medical diagnostic testing industry is characterized by rapidly evolving technology and intense competition for sales and revenue. The current TAS menu competes in the coagulation and hematology testing market with manufacturers that provide testing equipment to central and stat laboratories of hospitals. These laboratories currently perform a substantial portion of such testing. The TAS menu also competes with other point-of-care coagulation and hematology test system manufacturers. Laboratories provide some of the same tests performed by TAS; however, these laboratory tests generally require the use of skilled technicians and complex, expensive equipment. We believe that TAS offers several advantages over these laboratory-based instruments, including faster results, ease-of-use, reduced opportunity for error and cost-effectiveness.

We have several competitors, including Roche Diagnostics, International Technidyne Corporation, or ITC, and Medtronic, that manufacture and market point-of-care coagulation and hematology test systems. ITC, in particular, has a large installed base of systems, which it has been selling for over 20 years. Despite the fact that we believe that TAS competes favorably with these systems, ITC s installed base could give it a competitive advantage. We believe that potential customers will base their purchasing decisions upon a combination of factors, including accuracy and precision, speed, cost-effectiveness, data management, ease-of-use, compliance with CLIA guidelines, and availability of a comprehensive test menu. If we introduce additional blood tests beyond our initial coagulation and hematology tests, we will compete with other companies that market similar products to hospitals for use in laboratories and at the point of patient care. Other manufacturers and academic institutions may be conducting research and development with respect to blood testing technologies and other companies may in the future engage in research and development activities regarding products that compete with

our products. Many of the companies in the medical technology industry, including those listed above, have substantially greater capital resources, research and development staffs, sales and manufacturing capabilities and manufacturing facilities than us. Such entities may be developing or could in the future attempt to develop additional products competitive with TAS. Many of these companies also have substantially greater experience than we do in research and development, obtaining regulatory clearances, manufacturing and marketing, and may therefore represent significant competition for us. There can be no assurance that our competitors will not succeed in developing or marketing technologies and products that will be more effective or less expensive than those being marketed by us or that would render our technology and products obsolete or noncompetitive. If our products become obsolete or noncompetitive, our revenue and profitability will suffer.

Regulatory approval of our products is time-consuming, expensive and uncertain, and could result in unexpected high expenses and delay our ability to sell our products, which would adversely affect our results of operations.

The medical devices that we market and manufacture are subject to extensive regulation by the FDA and other regulators. Pursuant to the FDC Act, the FDA regulates the clinical testing, manufacture, design control, labeling, distribution and promotion of medical devices. Noncompliance with applicable requirements can result in, among other things:

fines;
injunctions;
civil penalties;
recall or seizure of products;
total or partial suspension of production;
failure of the government to grant premarket clearance or premarket approval, or PMA, for devices;
withdrawal of marketing approvals; and,
criminal prosecution.

The FDA also has the authority to request repair, replacement or refund of the cost of any device that we manufacture or distribute.

All of our currently FDA-cleared products have qualified for either the 510(k) process or the accelerated humanitarian device exemption process. Commercial distribution of a device for which a 510(k) is required can begin only after the FDA issues an order finding the device to be substantially equivalent to a predicate legally marketed medical device. The FDA has recently been requiring a more rigorous demonstration of substantial equivalence than in the past. It generally takes from four to twelve months from submission of a 510(k) application to obtain a 510(k) clearance, but it might take longer. The alternative PMA process is more expensive and time-consuming. An FDA not substantially equivalent

determination, which would require a PMA filing, or request for additional information could delay the market introduction of new products and could have a material adverse effect on our business, financial condition and results of operations. For any of our products that are cleared through the 510(k) process, modifications or enhancements that could significantly affect the safety or efficacy of the device or that constitute a major change to the intended use of the device will require a new 510(k). If the FDA requires us to submit a new 510(k) for any modification to the device, we might be prohibited from marketing the modified device until the 510(k) is cleared by the FDA, which might likewise adversely affect us.

Pursuant to FDA policy, manufacturers of devices labeled for investigational use only must establish a controlled program for their distribution and use. Failure by us or recipients of our investigational use only

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products to comply with these requirements could result in enforcement action by the FDA that would adversely affect our ability to conduct testing necessary to obtain market clearance and, consequently, could have a material adverse effect on us.

Export of products subject to the 510(k) requirements, but not yet cleared to market, are permitted without FDA authorization provided certain requirements are met. Unapproved products subject to the PMA requirements must be approved by the FDA for export. Products which we export that do not have premarket clearance in the United States include our LOT test, ECT test and modified ECT test. We believe that these and future products we would export are subject to the 510(k) requirements and, consequently, have not requested FDA approval for export. However, the FDA could disagree with us and decide that a PMA rather than a 510(k) is needed. If the FDA disagreed, it could significantly delay and impair our ability to continue exporting these tests and could have a material adverse effect on us.

Sales of our test products outside the United States are also subject to foreign regulatory requirements that vary widely from country to country. These laws and regulations range from simple product registration requirements in some countries to complex clearance and production controls in others. As a result, the processes and time periods required to obtain foreign marketing approval may be longer or shorter than those necessary to obtain FDA approval. These differences may affect the efficiency and timeliness of international market introduction of our products, and we might not be able to obtain regulatory approvals or clearances for our products in foreign countries. Delays in receipt of, or a failure to receive, such approvals or clearances, or the loss of any previously received approvals or clearances, could have a material adverse effect on us.

In Japan, we rely upon our collaborative partner, Tokuyama, to comply with applicable regulations regarding the product listing, manufacture and sale of products in that country. We believe that our products are in compliance with applicable regulations in Japan. Failure to obtain or maintain foreign regulatory approvals could have a material adverse effect on our business, financial condition and results of operations.

Our products are also subject to the requirements of the Clinical Laboratory Improvement Act of 1988, or CLIA. CLIA requires all laboratories, including those performing blood chemistry tests, to meet specified standards in the areas of personnel qualification, administration, participation in proficiency testing, patient test management, quality control, quality assurance and inspections. Currently, seven of our tests performed by TAS have been categorized by the FDA and the Centers for Disease Control and Prevention as moderate complexity tests. However these tests could be recategorized, and other tests performed by the TAS could be categorized as high complexity tests. Such a categorization could have a material adverse effect on us. As a result of the CLIA requirements, hospitals may be discouraged from expanding point-of-care testing, which would limit our potential sales. Furthermore, regulations under and future administrative interpretations of CLIA could have an adverse impact on the potential market for our products.

Our heavy dependence on patents and proprietary technology could be costly to us.

Our success will depend in part on our ability to enforce our patents, to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. Our ability to protect our proprietary position is also in part dependent on the issuance of additional patents on current and future applications. Patent applications might not be issued, and the scope of any patent protection might not exclude competitors or provide competitive advantages to us. Any of our patents could be held invalid if subsequently challenged and others might claim rights in or ownership to the patents and other proprietary rights held by us. Furthermore, others might have developed or will develop similar products, duplicate our products or design around our patents. If any relevant claims of third-party patents are upheld as valid and enforceable, we could be prevented from practicing the subject matter claimed in such patents or could be required to obtain licenses from the patent owners of each of such patents or to redesign our products or processes to avoid infringement. Such licenses might not be available or, if available, could be on terms unacceptable to us.

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We also rely upon unpatented trade secrets to protect our proprietary technology. In particular, we believe that our custom-designed automated test card production line embodies proprietary process technology. Others may independently develop or otherwise acquire equivalent technology or otherwise gain access to our proprietary technology and we might not ultimately be able to protect meaningful rights to such unpatented proprietary technology. There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry.

The sale of the shares registered in this offering could cause our stock price to decline.

Of the 2,472,364 shares registered in this offering,

1,619,661 shares will be freely tradable upon effectiveness of this registration statement,

542,865 shares will be freely tradable upon exercise of warrants that become exercisable in November 2003, and

the remaining 309,838 shares will be freely tradable when issued pursuant to our obligation to issue 2.125% cumulative quarterly dividends on the Series B preferred stock through September 2005.

The sale of a significant amount of shares registered in this offering at any given time could cause the trading price of our common stock to decline and to be highly volatile.

A significant number of our shares are eligible for future sale and the sale of our shares into the market might negatively affect our stock price.

As of June 30, 2003, we had outstanding:

9.815.708 shares of common stock:

warrants to purchase an aggregate of approximately 793,865 shares of our common stock; and

preferred stock that is convertible into an aggregate of approximately 2,379,661 shares of common stock.

We have also reserved for issuance 1,722,368 shares of our common stock pursuant to stock plans, under which options to purchase 1,551,634 shares of common stock were outstanding as of June 30, 2003.

The existence of these warrants, preferred stock and options may adversely affect us or our shareholders for many reasons, including:

the market price of our common stock might be adversely affected;

if any of these securities are exercised, the value of the common stock held by stockholders will be diluted if the value of the common stock immediately prior to the exercise of these securities exceeds the exercise price;

some of these securities give the holders of them the opportunity, at nominal cost, to profit from a rise in the market price of our common stock; and

the terms upon which we could issue additional shares of common stock or obtain other sources of financing may be adversely affected.

Holders of warrants and options are also not likely to exercise them until such time as, in all likelihood, we could obtain additional financing from other sources on terms more favorable than those provided by the warrants and options.

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Our limited manufacturing experience could limit our ability to meet anticipated demand for our products, limiting potential future revenue.

To be successful, we must manufacture our products in compliance with regulatory requirements, in sufficient quantities and on a timely basis, while maintaining product quality and acceptable manufacturing costs. We have limited experience producing our products in large commercial quantities. We may not be able to manufacture accurate and reliable products in large commercial quantities on a timely basis and at an acceptable cost, which would hurt our revenue and profitability.

We obtain most of the materials for our products from single or limited sources, which puts our revenue and profitability at risk.

We obtain most of the raw materials and components used to manufacture our TAS products from a sole supplier or a limited group of suppliers. PIOP and some reagents used in the TAS test cards are obtained from single sources. Our reliance on sole or limited suppliers and our inability to maintain long-term agreements with suppliers involves several risks, including the inability to obtain an adequate supply of required raw materials and components and reduced control over pricing, quality and timely delivery. Any interruption in supply could have a material adverse effect on our potential future revenue and profitability.

If third-party payors do not provide coverage or reimburse patients for our products and related treatment, our ability to derive revenues will suffer.

Our ability to commercialize our products successfully and generate revenue may depend in part on the extent to which reimbursement for the cost of such products and related treatment will be available from government health administration authorities (such as the Health Care Financing Administration, or HCFA), which determines Medicare reimbursement levels, private health insurers and other organizations, collectively known as payors. Our FDA-approved products are eligible for reimbursement from third-party payors under the same process used for other clinical laboratory tests. In some cases, the reimbursement for a particular product is included in the payor s reimbursement for the related medical procedure, rather than for the individual products or tests used during the procedure. The amount of authorized reimbursement for a particular medical procedure is generally calculated pursuant to standard practices with consideration given to the products and tests typically associated with or used in the related procedure. For example, hospitals using our products in connection with a heart surgery procedure would typically be reimbursed by the payors based on a pre-determined cost for that procedure rather than for each individual product or test used in connection with the procedure. Accordingly, if payors deny reimbursement for procedures compatible with or employing our products, which could happen for any number of reasons unrelated to our products and over which we might likely have little or no control, use of our products and related revenues would likely suffer. Likewise, we try to position our new tests and products under development to qualify for reimbursement in connection with their use with specific procedures or drugs. If those procedures or drugs fail to qualify, or cease to be qualified, for reimbursement, our revenues and prospects for future revenues would likely suffer. Payors are increasingly challenging the prices of medical products and services. Payors may deny reimbursement if they determine that a prescribed device has not received appropriate FDA or other governmental regulatory clearances, is not used in accordance with cost-effective treatment methods, or is experimental, unnecessary or inappropriate. In addition, under current HCFA regulations, equipment costs generally are not reimbursed separately, but rather are included in a single, fixed-rate, per-patient reimbursement. Also, the trend towards managed healthcare in the United States and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of healthcare services and products, as well as legislative proposals to reform healthcare or reduce government insurance programs, might result in customers demanding lower prices for our TAS products. The cost containment measures that healthcare providers are instituting and the impact of any healthcare reform could have an adverse effect on our ability to sell our products and may have a material adverse effect on us.

There can be no assurance that reimbursement in the United States or foreign countries will be available for any of our products, or that if available it will not be decreased in the future, or that any reduction in reimbursement

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amounts will not reduce the demand for or the price of our products. Moreover, we are unable to accurately forecast what additional legislation or regulations, if any, relating to the healthcare industry or third-party coverage and reimbursement may be enacted in the future or what effect such legislation or regulations would have on us.

We could issue preferred stock and take other actions that might discourage third parties from acquiring us in a transaction that you might consider to be in your best interest.

Our board of directors has the authority, without further action by the shareholders, to issue up to 1,000,000 shares of preferred stock, 76,000 of which are outstanding as Series A preferred stock and 97,180 are outstanding as Series B preferred stock, and to fix the rights, preferences, privileges and restrictions, including voting rights, of such shares. Holders of our Series A and Series B preferred stock have rights to have their shares redeemed by us in connection with a change of control. The rights of the holders of the common stock are subject to the rights of the holders of our outstanding preferred stock, and will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that we may issue in the future. Issuing preferred stock could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting stock, thereby delaying, deferring or preventing a change in control of our company. Furthermore, the preferred stock may have other rights, including economic rights, senior to our common stock, and as a result, issuing preferred stock could have a material adverse effect on the market value of our common stock and the price that investors might be willing to pay for your shares.

Certain provisions of our articles of incorporation and our bylaws could make it more difficult for a third party to acquire, and could discourage a third party from attempting to acquire, control of our company. Some of them eliminate the right of shareholders to act by written consent and impose various procedural and other requirements which could make it more difficult for shareholders to undertake certain corporate actions. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock and may have the effect of delaying or preventing a change in control of us. We may in the future adopt other measures that may have the effect of delaying, deferring or preventing a change in control of the company. Certain of these measures may be adopted without any further vote or action by the shareholders, although we have no present plans to adopt any such measures.

We could be exposed to product liability claims that could prevent or interfere with our product commercialization efforts and hurt our financial condition.

We face an inherent business risk of exposure to product liability claims in the event that the use of our products is alleged to have resulted in adverse effects. We maintain product liability insurance with coverage of up to \$15 million per claim, with an annual aggregate policy limit of \$16 million. Liability claims could exceed the coverage limits of such policies and such insurance might not continue to be available on commercially acceptable terms, or at all. Consequently, product liability claims could have a material adverse effect on our business, financial condition and results of operations.

We might not be able to use net operating loss carryforwards, which might hurt our results of operations and financial condition.

As of December 31, 2002, we had net operating loss carryforwards for federal income tax purposes of approximately \$49.8 million, which will expire at various dates beginning in 2004 if not utilized. Our ability to use these net operating loss and credit carryforwards to offset future tax obligations, if any, may be limited by changes in ownership. Any limitation on the use of net operating loss carryforwards, to the extent it increases the amount of federal income tax that we must actually pay, may have an adverse impact on our results of operations and financial condition.

We do not presently anticipate paying cash dividends on our common stock.

We intend to retain all earnings for the foreseeable future for funding our business operations. In addition, our outstanding preferred stock contains restrictions on our ability to declare and pay dividends on our common stock. Consequently, we do not anticipate paying any cash dividends on our common stock for the foreseeable future.

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If we fail to maintain compliance with our Nasdaq National Market listing, the value and liquidity of your shares could be impaired.

Our common stock is currently listed on the Nasdaq National Market. Nasdaq has certain requirements that a company must meet in order to remain listed on the Nasdaq National Market. If we continue to experience losses from our operations and we are unable to raise additional funds or if our market capitalization falls and stays below Nasdaq s minimum requirement of \$50 million, we may not be able to maintain the standards for continued listing on the Nasdaq National Market. As of July 28, 2003, our market capitalization was approximately \$48.4 million based on closing sale price of \$4.93 per share on that date.

If our common stock were delisted from the Nasdaq National Market, our stock could be subject to what are known as the penny stock rules. The penny stock rules place additional requirements on broker-dealers who sell or make a market in such securities. Consequently, if we were removed from the Nasdaq National Market, the ability or willingness of broker-dealers to sell or make a market in our common stock could decline. As a result, your ability to resell your shares of our common stock, and the market price of those shares, could be adversely affected.

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Where You Can Find More Information

We file annual, quarterly and special reports, proxy statements and other information with SEC. You may read and copy any document we file at the SEC s public reference rooms AT 450 Fifth Street, N.W., Washington, D.C. 20549. You should call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public on the SEC s web site at http://www.sec.gov. Our Commission filing number is 0-25133.

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

- 1. Annual Report on Form 10-K for the year ended December 31, 2002;
- 2. Quarterly Report on Form 10-Q for the quarter ended March 31, 2003;
- 3. Our definitive proxy statement filled with the SEC on April 4, 2003 for our 2003 Annual Meeting of Shareholders held on May 8, 2003;
- 4. Current Reports on Form 8-K filed on January 9, 2003, February 5, 2003, April 4, 2003, April 30, 2003, May 5, 2003 and May 27, 2003; and,
- 5. The description of our common stock contained in our registration statement filed on October 12, 1995 pursuant to Section 12 of the Exchange Act, as amended from time to time.

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

PharmaNetics, Inc.

Investor Relations

9401 Globe Center Drive, Suite 140

Morrisville, North Carolina 27560

(919) 582-2600

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information or representations provided in this prospectus. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.

Special Note Regarding Forward-Looking Statements

Some of the statements contained in this prospectus discuss our plans and strategies for our business and are forward-looking statements as that term is defined in the Private Securities Litigation Reform Act. The words anticipates, believes, estimates, expects, plans, intends and expressions are meant to identify these statements as forward-looking statements, but they are not the exclusive means of identifying them. The forward-looking statements in this prospectus reflect the current views of our management; however, various risks, uncertainties and contingencies could cause our actual results, performance or achievements to differ materially from those expressed or implied by these statements, including:

The success or failure of our efforts to implement our business strategy;

Our history of losses and negative operating cash flows;

Our future capital needs and the uncertainty of additional funding;

A developing market for our business model and products; and,

The other factors discussed in the Risk Factors section and elsewhere in this prospectus.

We assume no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise. For a discussion of important risks of an investment in our common stock, including factors that could cause actual results to differ materially from results referred to in the forward-looking statements, see the Risk Factors section of this prospectus. In light of the risks and uncertainties discussed in Risk Factors and elsewhere in this prospectus, events referred to in forward-looking statements in this prospectus might not occur.

Use of Proceeds

We will not receive any of the proceeds from the sale of shares of the common stock offered by the selling shareholders. We are registering the shares for sale to provide the holders thereof with freely tradable securities, but the registration of such shares does not necessarily mean that any of such shares will be offered or sold by the holders thereof.

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Selling Shareholders

The shares offered under this prospectus may be sold from time to time for the account of the selling shareholders named in the following table. The table also contains information regarding each selling shareholder s beneficial ownership of shares of our common stock as of July 1, 2003, and as adjusted to give effect to the sale of the shares. As of July 1, 2003, we had 9,815,708 shares of common stock outstanding.

	Beneficial Ownership Prior To Offering		Beneficial Ownership After Offering (1)	
Name	Number of Shares(2)	Number of Shares To Be Sold(3)	Number of Shares	Percent of Class
Camden Partners Strategic Fund II-A, L.P.(4)	813,958	1,226,434		
Camden Partners Strategic Fund II-B, L.P.(4)	48,286	72,755		
AIG DKR SoundShore Private Investors Holding Fund	,200	72,700		
Ltd.(5)	92,986	140,107		
BayStar Capital II, LP(6)	169,066	254,741		
Capital Ventures International(7)	101,440	152,846		
Crestview Capital Fund I, LP(8)	93,021	140,160		
Crestview Capital Fund II, LP(8)	25,360	38,211		
Crestview Capital Offshore Fund, Inc.(8)	8,420	12,686		
Mainfield Enterprises Inc.(9)	81,152	122,277	5,000	*
Omicron Master Trust(10)	84,532	127,368		
Smithfield Fiduciary LLC(11)	101,440	152,846		
SG Cowen Securities Corporation(12)		31,933		
Totals:	1,619,661	2,472,364	5,000	*%

Less than one percent

- (1) Assumes the sale of all the shares offered hereby. This registration statement also shall cover any additional shares of common stock which become issuable in connection with the shares registered for resale hereby by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the outstanding shares of our common stock
- (2) Represents shares of common stock issuable upon conversion of currently outstanding shares of Series B preferred stock.
- (3) Includes 332,834 total shares representing our obligation to issue 2.125% cumulative quarterly dividends on the Series B preferred stock through September 2005. On June 30, 2003, the first scheduled quarterly dividend date, 22,996 of these dividend shares were issued to the selling shareholders, but the remaining 309,838 dividend shares have not yet been earned or issued. The number of dividend shares we are registering hereunder will be sufficient to cover all of the dividends we would be required to pay to the selling shareholders through September 2005, assuming no prior conversions or redemptions of the preferred shares. Any dividends we might elect to pay in shares of common stock, in lieu of cash, after September 2005 are not registered for resale hereunder and are not required to be so registered.
- (4) Richard M. Johnston has been appointed to our Board of Directors as the designee of the Series B preferred shareholders. Mr. Johnston, David L. Warnock, Donald W. Hughes and Richard M. Berkeley are the managing members of Camden Partners Strategic II, LLC which serves as the general partner to Camden Partners Strategic Fund II-A, L.P. and Camden Partners Strategic Fund II-B, L.P. As such, each of these individuals may be deemed indirect beneficial owners of these shares to the extent of his pecuniary interest therein. Each of these individuals disclaims beneficial ownership of these shares, except to the extent of his indirect pecuniary interest therein.
- (5) Howard Fischer, as the President of the portfolio manager of AIG DKR SoundShore Private Investors Holding Fund Ltd., has the power to vote and dispose of these shares. As such, he may be deemed the beneficial owner of these shares, which ownership he disclaims except to the extent of his pecuniary interest therein.

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- (6) Steve Darby, Steven M. Lamar and Lawrence Goldfarb are the managing members of the general partner of BayStar Capital II, LP, each having the power to vote and/or dispose of these shares. As such, each of these individuals may be deemed beneficial owners of these shares, which ownership each of them disclaims except to the extent of his pecuniary interest therein.
- (7) Heights Capital Management, Inc., a Delaware corporation, has the power to vote and dispose of these shares.
- (8) Stewart Flink and Richard Levy may be deemed the beneficial owners of these shares by virtue of their power to vote and dispose of the shares. Each of them disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein.
- (9) Avi Vigder, as the President of the sub-manager of Mainfield Enterprises, Inc., has the power to vote and dispose of these shares. As such, he may be deemed the beneficial owner of these shares, which ownership he disclaims except to the extent of his pecuniary interest therein.
- (10) Omicron Capital, L.P., a Delaware limited partnership (Omicron Capital), serves as investment manager to Omicron Master Trust, a trust formed under the laws of Bermuda (Omicron), Omicron Capital, Inc., a Delaware corporation (OCI), serves as general partner of Omicron Capital, and Winchester Global Trust Company Limited (Winchester) serves as the trustee of Omicron. By reason of such relationships, Omicron Capital and OCI may be deemed to share dispositive power over the shares of our common stock owned by Omicron, and Winchester may be deemed to share voting and dispositive power over the shares of our common stock owned by Omicron. Omicron Capital, OCI and Winchester disclaim beneficial ownership of such shares of our common stock. Omicron Capital has delegated authority from the board of directors of Winchester regarding the portfolio management decisions with respect to the shares of common stock owned by Omicron and, as of April 21, 2003, Mr. Olivier H. Morali and Mr. Bruce T. Bernstein, officers of OCI, have delegated authority from the board of directors of OCI regarding the portfolio management decisions of Omicron Capital with respect to the shares of common stock owned by Omicron. By reason of such delegated authority, Messrs. Morali and Bernstein may be deemed to share dispositive power over the shares of our common stock owned by Omicron. Messrs. Morali and Bernstein disclaim beneficial ownership of such shares of our common stock and neither of such persons has any legal right to maintain such delegated authority. No other person has sole or shared voting or dispositive power with respect to the shares of our common stock being offered by Omicron, as those terms are used for purposes under Regulation 13D-G of the Securities Exchange Act of 1934, as amended. Omicron and Winchester are not affiliates of one another, as that term is used for purposes of the Securities Exchange Act of 1934, as amended, or of any other person named in this prospectus as a selling stockholder. No person or group (as that term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended, or the SEC s Regulation 13D-G) controls Omicron and Winchester.
- (11) Glen Dubin and Henry Swieca may be deemed the beneficial owners of these shares by virtue of their control of the trading manager of Smithfield Fiduciary, LLC, which has voting control and investment discretion with respect to these shares. Each of the trading manager and Messrs. Dubin and Swieca disclaim beneficial ownership of these shares, except to the extent of their pecuniary interest therein.
- (12) Consists of a warrant, not exercisable until November 1, 2003, to purchase shares of our common stock at \$7.20 per share issued in consideration for placement agent services provided to us in connection with the Series B preferred private placement. We also paid SG Cowen Securities Corporation cash commissions of \$622,700 for their services, representing 6.5% of the gross proceeds raised.

We issued an aggregate of 95,800 shares of Series B preferred stock, convertible 16.6667-for-1 into a total of 1,596,665 of our common stock, to the selling shareholders in connection with our \$9,579,990 private placement in May 2003. We also issued warrants to the investors to purchase a total of 510,932 shares of common stock at \$7.20 per share, along with a warrant to the placement agent to purchase 31,933 shares of common stock at \$7.20 per share, in connection with this private placement. We agreed to register for resale all of these shares, along with common stock issuable upon conversion of Series B preferred stock which we are required to issue as dividends on the Series B preferred stock through September 2005, and to pay substantially all of the expenses of offering them under this prospectus.

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Plan of Distribution

The selling shareholders may offer the shares at various times in one or more of the following transactions (which may involve cross or block transactions):

On any national securities exchange or quotation service on which the shares may be listed or quoted at the time of sale; in the over-the-counter market; in transactions otherwise than on such exchanges or services or in the over-the-counter market; through the writing of options; or, in a combination of any of the above.

The selling shareholders may sell shares at market prices then prevailing, at prices related to prevailing market prices, at negotiated prices or at fixed prices. In connection with sales of the shares or otherwise, the selling shareholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The selling shareholders may also sell shares short and deliver shares to close out such short positions, or loan or pledge shares to broker-dealers that in turn may sell such securities.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers.

The selling shareholders may use broker-dealers to sell shares. If this happens, broker-dealers will either receive discounts or commissions from the selling shareholders, or they will receive commissions from purchasers of shares for whom they have acted as agents.

The selling shareholders and any broker-dealers who act in connection with the sale of the shares hereunder may be deemed to be underwriters—within the meaning of the Securities Act, and any commissions they receive and proceeds of any sale of the shares may be deemed to be underwriting discounts and commissions under the Securities Act.

To our knowledge, based on inquiry, we believe that five of the selling shareholders, consisting of Smithfield Fiduciary, LLC, Crestview Capital Fund I, LP, Crestview Capital Fund I, LP, Crestview Capital Fund II, LP, Crestview Capital Offshore Fund, Inc. and Capital Ventures International, are affiliates of a broker-dealer and that SG Cowen Securities Corporation is a broker-dealer. Each of them has advised us that it purchased or acquired the securities in the ordinary course of business and that at the time of the purchase of the securities to be resold hereunder, it had no agreements or understanding, directly or indirectly, with any person to distribute the securities.

Neither we nor the selling shareholders can presently estimate the amount of such compensation. We know of no existing arrangements between any selling shareholders, any other shareholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares.

We will pay all of the expenses incident to the registration, offering and sale of the shares to the public other than commissions or discounts of underwriters, broker-dealers or agents. We also agreed to indemnify the selling shareholders and certain related persons against certain liabilities, including liabilities under the Securities Act.

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

We have advised the selling shareholders that during such time as they may be engaged in a distribution of the shares included in this prospectus they are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling

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shareholders, any affiliated purchasers, and any broker-dealer or other person who participates in such distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered hereby.

This offering will terminate on the earlier of (a) the date on which all the shares may be sold within a 90 day period without restrictions pursuant to Rule 144 under the Securities Act, (b) the date on which all shares offered by this prospectus have been sold by the selling shareholders, or (c) May 1, 2005.

Experts

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K of PharmaNetics, Inc. for the year ended December 31, 2002 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

Legal Matters

The validity of the issuance of the shares of common stock offered hereby will be passed upon for us by Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina.

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No one (including any salesman or broker) is authorized to provide oral or written information about this offering that is not included in this prospectus.

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2,472,364 SHARES

PHARMANETICS, INC.

COMMON STOCK

PROSPECTUS	
July , 2003	

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the estimated expenses payable by the registrant in connection with the filing of this Form S-3 Registration Statement:

SEC registration	\$ 1,114
Printing costs	\$ 3,500
Legal fees	\$ 20,000
Accounting fees and expenses	\$ 10,000
Miscellaneous expenses	\$ 1,500
Total	\$ 36,114

Item 15. Indemnification of Directors and Officers

The Registrant s Articles of Incorporation and Bylaws include provisions to (i) eliminate the personal liability of its directors for monetary damages resulting from breaches of their fiduciary duty to the fullest extent permitted by Section 55-8-30(e) of the North Carolina Business Corporation Act (the Business Corporation Act), and (ii) require the Registrant to indemnify its directors and officers to the fullest extent permitted by Sections 55-8-50 through 55-8-58 of the Business Corporation Act, including circumstances in which indemnification is otherwise discretionary. Pursuant to Sections 55-8-51 and 55-8-57 of the Business Corporation Act, a corporation generally has the power to indemnify its present and former directors, officers, employees and agents against expenses incurred by them in connection with any suit to which they are, or are threatened to be made, a party by reason of their serving in such positions so long as they acted in good faith and in a manner they reasonably believed to be in, or not opposed to, the best interests of the corporation, and with respect to any criminal action, they had no reasonable cause to believe their conduct was unlawful. The Registrant believes that these provisions are necessary to attract and retain qualified persons as directors and officers. These provisions do not eliminate the directors duty of care, and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available under the Business Corporation Act. In addition, each director will continue to be subject to liability for breach of the director s duty of loyalty to the Registrant, for acts or omissions that the director believes to be contrary to the best interests of the Registrant or its shareholders, for any transaction from which the director deprived an improper personal benefit, for acts or omissions involving a reckless disregard for the director s duty to the Registrant or its shareholders when the director was aware or should have been aware of a risk of serious injury to the Registrant or its shareholders, for acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director s duty to the Registrant or its shareholders, for improper transactions between the director and the Registrant and for improper distributions to shareholders and loans to directors and officers. These provisions do not affect a director s responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

The Registrant s Bylaws require the Registrant to indemnify its directors and officers against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred (including expenses of a derivative action) in connection with any proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director or officer of the Registrant or any of its affiliated enterprises, provided such person acted in good faith and in a manner such person reasonably believed to be in or not

opposed to the best interest of the Registrant and with respect to any proceeding, had no reasonable cause to believe his or her conduct was unlawful. The Registrant s Bylaws also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

The Registrant maintains liability insurance insuring its officers and directors against liabilities that they may incur in such capacities.

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At present, there is no pending litigation or proceeding involving a director or officer of the Registrant as to which indemnification is being sought nor is the Registrant aware of any threatened litigation that may result in claims for indemnification by any officer or director.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

Exhibit No.	Description		
3.3(a)	Bylaws.		
3.5(i)	Amended and Restated Articles of Incorporation filed with the North Carolina Secretary of State on April 30, 2003		
4.1(a)	Form of Common Stock certificate.		
5.1	Opinion of Wyrick Robbins Yates & Ponton LLP		
10.2(a)*	License Agreement with Tokuyama Soda Company, Ltd., dated October 6, 1988.		
10.3(a)	Form of International Distributor Agreement.		
10.4(a)*	Purchasing Agreement with VHA Inc., dated April 1,1995		
10.8(a)	1994 Stock Plan, as amended.		
10.9(a)	1995 Stock Plan, as amended.		
10.10(a)*	License Agreement with Duke University, dated January 22, 1993.		
10.18(b)*	Amendment Agreement, dated December 14, 1995, to License Agreement with Tokuyama Soda Company, Ltd.		
10.20(d)*	Patent Sublicense Agreement, dated December 1, 1996, with Knoll AG.		
10.21(d)*	Development Agreement dated August 21, 1996, with Bayer Corporation.		
10.22(e)*	Distribution Agreement with Chiron Diagnostics Corporation dated August 28, 1998.		
10.23(e)	Common Stock Purchase Agreement with Chiron Diagnostics Corporation dated August 28, 1998.		
10.24(f)	Series A Preferred Stock and Warrant Purchase Agreement dated February 24, 2000.		
10.25(f)	Form of Warrant between the Company and the Series A Investors dated February 25, 2000.		
10.26(g)	Lease Agreement dated July 27, 2000 relating to 9401 Globe Drive.		
10.27(h)	Common Stock Purchase Agreement between the Registrant and Bayer Corporation dated April 23, 2001.		
10.28(h)	Amended and Restated Distribution Agreement between the Registrant and Bayer Corporation dated April 23, 2001.		
10.29(i)	Series B Stock Purchase and Warrant Agreement dated April 30, 2003.		
10.30(i)	Form of Warrant between the Company and the Series B Investors dated May 1, 2003.		
10.31(i)	Registration Rights Agreement among PharmaNetics, Inc. and Series B Investors dated May 1, 2003.		
10.32(i)	Shareholder s Agreement among PharmaNetics, Inc. and certain Series B shareholders dated May 1, 2003.		
10.33(i)	Amendment No. 1 dated April 29, 2003 to the Common Stock Purchase Agreement with Bayer Corporation dated April 23, 2001.		
10.34	Collaborative Development Agreement dated August 30, 2000 with Aventis Pharmaceuticals Products, Inc.		

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Exhibit No.	Description
10.35	Promissory Note issued effective on December 10, 2002 by Cardiovascular Diagnostics, Inc. to General Electric Capital Corporation.
10.36	Master Security Agreement dated November 20, 2002, as amended, between Cardiovascular Diagnostics, Inc. and General Electric Capital Corporation.
10.37	Corporate Guaranty given by PharmaNetics, Inc. to General Electric Capital Corporation dated December 10, 2002.
10.38	Change of Control Agreement with John Funkhouser dated October 10, 1997.
10.39	Employment Agreement with James A. McGowan dated May 3, 2000.
10.40	Transitional Employment Agreement with James A. McGowan dated July 4, 2003.
21.1(a)	List of Subsidiaries.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Auditors.
23.2	Consent of Wyrick Robbins Yates & Ponton LLP (contained in Exhibit 5.1)
24.1	Power of Attorney (see page II-5).

^{*} Confidential treatment has been granted with respect to portions of this exhibit.

- (a) Incorporated herein by reference to the identically numbered exhibits to the Registrant s Registration Statement on Form S-1 (Registration No. 33-98078) initially filed October 12, 1995, as amended.
- (b) Incorporated herein by reference to the identically-numbered exhibit to the Registrant s Annual Report on Form 10-K for the year ended December 31, 1995.
- (c) Not used
- (d) Incorporated herein by reference to the identically-numbered exhibit to the Registrant s Annual Report on Form 10-K for the year ended December 31, 1996.
- (e) Incorporated herein by reference to the identically-numbered exhibit to the Registrant s Registration Statement on Form S-4 (No. 333-66017) as filed with the SEC on October 22, 1998.
- (f) Incorporated by reference to the identically-numbered exhibit to the Registrant s Current Report on Form 8-K filed March 1, 2000.
- (g) Incorporated by reference to the identically-numbered exhibit to the Registrant s Annual Report on Form 10-K for the year ended December 31, 2000.
- (h) Incorporated by reference to the identically numbered exhibit to the Registrant s Current Report on Form 8-K filed April 27, 2001.
- (i) Incorporated by reference to the identically numbered exhibit to the Registrant s Quarterly Report on Form 10-Q for the quarter ended March 31, 2003.

Item 17. Undertakings

The undersigned registrant hereby undertakes as follows:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes 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 section 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 related to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.
- (c) 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, 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 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 of controlling person or the registrant in the successful defense of any action, suite 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 Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certified that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Raleigh, State of North Carolina, on this 29th day of July 2003.

PHARMANETICS, INC.

By: /s/ John P. Funkhouser

John P. Funkhouser President and Chief Executive

Officer

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

<u>Signature</u>	<u>Capacity</u>	<u>Date</u>
/s/ John P. Funkhouser	Director, President and Chief Executive Officer (Principal Executive Officer)	July 29, 2003
John P. Funkhouser	,	
/s/ Paul T. Storey	Chief Financial Officer	July 29, 2003
Paul T. Storey	(Principal Financial and Accounting Officer)	
/s/ James B. Farinholt, Jr.*	Director	July 29, 2003
James B. Farinholt, Jr.		
/s/ John K. Pirotte*	Director	July 29, 2003
John K. Pirotte		
/s/ Stephen R. Puckett*	Director	July 29, 2003
Stephen R. Puckett		
/s/ Philip R. Tracy*	Director	July 29, 2003
Philip R. Tracy		
/s/ Frances L. Tuttle*	Director	July 29, 2003

Frances L. Tuttle

/s/ Richard M. Johnston* Director July 29, 2003

Richard M. Johnston

*By: /s/ John P. Funkhouser July 29, 2003

John P. Funkhouser

Attorney-in-fact

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