

PROSPECTUS

5,077,000 Shares

NABI BIOPHARMACEUTICALS

Common Stock

This prospectus relates to shares of our common stock that will be sold by the selling security holders named in this prospectus. The selling security holders acquired these shares from us in a private placement completed in July 2003. We will not receive any of the proceeds from the sale of those shares.

Our common stock is traded on the Nasdaq National Market under the symbol "NABI." On October 8, 2003, the last reported sales price for our common stock on the Nasdaq National Market was \$10.27 per share.

See "Risk Factors" beginning on page 3 of this Prospectus for factors you should consider before buying shares of our common stock.

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

The date of this Prospectus is October 9, 2003.

OUR BUSINESS

The Securities and Exchange Commission (the "SEC") allows us to "incorporate by reference" certain information that we file with it, 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 update automatically, supplement and/or supersede this information. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other document which also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should read the following summary together with the more detailed information regarding our company, our common stock and our financial statements and notes to those statements appearing elsewhere in this prospectus or incorporated herein by reference. References in this prospectus to "our company," "we," "our," and "us" refer to Nabi Biopharmaceuticals.

Nabi Biopharmaceuticals discovers, develops, manufactures and markets products that power the immune system to help people with serious, unmet medical needs. We have a broad product portfolio and significant research capabilities focused on developing and commercializing novel vaccines and antibody-based biopharmaceutical products that prevent and treat infectious, autoimmune and addictive diseases, such as hepatitis B, hepatitis C and Staphylococcus aureus infections, immune thrombocytopenia purpura ("ITP") and nicotine addiction.

We have five marketed products, Nabi-HB® [Hepatitis B Immune Globulin (Human)] for the prevention of hepatitis B infections, WinRho SDF® [Rho(D) Immune Globulin Intravenous (Human)] for the treatment of acute, chronic and HIV-related ITP, PhosLo® (Calcium Acetate) for the treatment of hyperphosphatemia in patients with end-stage renal disease, Autoplex® T [Anti-Inhibitor Coagulant Complex, Heat Treated] and Aloprim™ [(Allopurinol sodium) for injection]. We have a significant clinical trials program including clinical trials of our lead investigational products, StaphVAX® (Staphylococcus aureus Polysaccharide Conjugate Vaccine), Altastaph™ [Staphylococcus aureus Immune Globulin (Human)], Civacir™ [Hepatitis C Immune Globulin (Human)], and NicVAX™ (Nicotine Conjugate Vaccine).

We have a state-of-the-art fractionation facility for the manufacture of Nabi-HB and our investigational antibody products and for contract manufacturing. Further, we also collect specialty and non-specific antibodies for use in our products as well as to supply pharmaceutical and diagnostic customers for the subsequent manufacture of their products.

We were incorporated in the State of Delaware in 1969. Our principal executive offices are located at 5800 Park of Commerce Boulevard N.W., Boca Raton, FL 33487. Our telephone number is (561) 989-5800.

RISK FACTORS

Except for the historical information contained in this prospectus or incorporated by reference, this prospectus (and the information incorporated by reference in this prospectus) contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed here or incorporated by reference. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the following section, as well as those discussed elsewhere in this prospectus and in any other documents incorporated by reference.

Investment in our shares involves a degree of risk. You should consider the following discussion of risks as well as other information in this prospectus and the incorporated documents before purchasing any shares. Each of these risk factors could adversely affect our business, operating results, prospects and financial condition, as well as adversely affect the value of an investment in our common stock.

This prospectus contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Statements in this prospectus that are not historical facts are hereby identified as “forward-looking statements” for the purpose of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. Words such as “estimate,” “project,” “plan,” “intend,” “expect,” “believe” and similar expressions are intended to identify forward-looking statements. All forward-looking statements are necessarily only estimates of future results and there can be no assurance that actual results will not differ materially from expectations, and, therefore, investors are cautioned not to place undue reliance on such statements. Set forth below is a discussion of certain factors, which could cause our actual results to differ materially from the results projected or suggested in such forward-looking statements. Investors should understand that it is not possible to predict or identify all such factors and that this list should not be considered a complete statement of all potential risks and uncertainties. We undertake no obligation to update any forward-looking statements as a result of future events or developments.

Our rights to three existing biopharmaceutical products may expire.

Our rights to WinRho SDF and Aloprim expire in 2005 and 2004, respectively. There can be no assurance that our rights to these products will be extended on the same terms as they now exist or at all. DSM Pharmaceuticals has advised us that it does not intend to extend the current Aloprim distribution agreement. We have the option to purchase the rights to Aloprim distribution in the territories now covered by the Aloprim agreement.

Pursuant to the terms under which we acquired our rights to Autoplex T from Baxter, the Federal Trade Commission could require us to return to Baxter our rights to Autoplex T if we do not obtain approval from the U.S. Food and Drug Administration to manufacture the product by May 2004. There can be no assurance that we will be able to obtain FDA approval to manufacture Autoplex T by May 2004.

We are and will continue to be dependent upon third parties to manufacture our products.

We do not currently manufacture four of our five marketed products and are dependent upon third parties to manufacture these products for us. The failure by these manufacturers to timely meet our needs for these products could have a material adverse effect on our future business, financial condition and results of operations. This has occurred in the past. Biopharmaceutical product sales were constrained in 2000 because of the inability of the contract manufacturer for WinRho SDF and Nabi-HB to supply product for a period of time. Since 2000, our ability to market Autoplex T has been adversely affected by the inability of the manufacturer of this product to reliably supply us with necessary quantities of this product at desired potency levels.

Our research and development pipeline principally involves specialty vaccines. We currently plan to utilize third parties to manufacture these vaccines. For the commercial manufacture of StaphVAX, we had entered into long-term contracts for production and commercial supply with Dow Biopharmaceutical Contract Manufacturing Services. On October 9, 2003, we announced that we and Dow had agreed to conclude the agreements immediately. On the same date, we announced that we had entered into a new ten-year agreement with Cambrex Bio Science Baltimore, Inc., a subsidiary of Cambrex Corporation, for the commercial manufacture of StaphVAX.

We will be dependent on Cambrex Bio Science and other third parties for the manufacture of StaphVAX and other products in our research and development pipeline. Such dependence is subject to the same risks that apply to the manufacture of our currently marketed biopharmaceutical products.

We have limited manufacturing capability and experience and may not utilize the full capacity of our facility.

We began commercial manufacturing of Nabi-HB at our Boca Raton biopharmaceutical manufacturing facility in the fourth quarter of 2001. We have not previously owned or operated a manufacturing facility and have limited experience in commercial, large-scale manufacturing of biopharmaceutical products. For the foreseeable future, we will not utilize the full manufacturing capacity of the facility and there can be no assurance that the facility can be operated efficiently. Further, there can be no assurance that we will have products to manufacture either on our own behalf or on behalf of third parties, to offset the cost of the facility's operation. Our failure to successfully operate our new manufacturing facility would have a material adverse effect on our future business, financial condition and results of operations.

A disaster at our sole manufacturing facility would interrupt our manufacturing capability for the products produced there.

Manufacturing products at a single site may present risks if a disaster, such as a fire or hurricane, causes interruption of manufacturing capability. In such an event, we will have to resort to alternative sources of manufacturing that could increase our costs as well as result in significant delays while required regulatory approvals are obtained. Any such delays or increased costs could have a material adverse effect on our future business, financial condition and results of operations.

We sell our products to a small number of customers; therefore, the loss of any major customer could have a material adverse effect on our results of operations or financial condition.

We sell a significant portion of our products to pharmaceutical wholesalers and distributors and major pharmaceutical companies. A loss of any major customer or a material reduction in such customer's purchases from us could have a material adverse effect on our results of operations or financial condition. We also maintain individually significant receivable balances with these customers. If these customers become unable or unwilling to pay amounts owed to us, our financial condition or results of operations could be adversely affected.

Heightened concerns and screening measures could adversely affect our antibody production.

Our antibody collection centers and our customers for antibody products are subject to extensive regulation by the FDA and non-U.S. regulatory authorities. Concern over the safety of antibody products has resulted in the adoption of more rigorous screening procedures by regulatory authorities and manufacturers of antibody products. In prior years, these changes have resulted in significantly increased costs to us in providing non-specific and specialty antibodies to our customers. New procedures, which include a more extensive investigation into a donor's background, as well as more sensitive tests, have also disqualified numerous potential donors and discouraged other donors who may be reluctant to undergo the screening procedures. These more stringent measures could adversely affect our antibody production with a corresponding adverse effect on our future business, financial condition and results of operations. In addition, our efforts to increase production to meet customer demand may result in higher costs to attract and retain donors.

The development of new treatments may reduce the demand for our antibodies and antibody-based biopharmaceutical products.

Most of the antibodies we collect, process and sell to our customers are used in the manufacture of biopharmaceutical products to treat certain diseases. Several companies are marketing and developing products to treat some of these diseases based on technology that would lessen or eliminate the need for human antibodies. Such products could adversely affect the demand for antibodies and antibody-based biopharmaceutical products. Although products utilizing technology developed to date have not proven as cost-effective and marketable to healthcare providers as products based on human antibodies, we are unable to predict the impact on our business of future technological advances on our business.

An increase in the supply of or a decrease in the demand for antibody products could materially and adversely affect our future business, financial condition and results of operations.

The worldwide supply of antibodies has fluctuated historically. Future changes in government regulation relating to the collection, fractionation and use of antibodies or any negative public perception about the antibody collection process or the safety of products derived from blood or antibodies could further adversely affect the overall supply of or demand for antibodies. Increases in supply or decreases in demand of antibody products could have a material adverse effect on our future business, financial condition and results of operations.

A reduction in the availability of specialty antibodies could adversely affect our ability to manufacture an adequate amount of Nabi-HB or to fulfill certain contractual obligations.

Our ability to manufacture Nabi-HB is dependent upon the availability of anti-HB specialty antibodies that we primarily obtain from our FDA approved antibody collection centers. Similarly, we have contractual obligations to supply other specialty antibodies to third parties that we also obtain from our FDA approved antibody collection centers. Specialty antibodies are more difficult to obtain than non-specific antibodies. Reduced availability of the necessary specialty antibodies could adversely affect our ability to manufacture an adequate amount of Nabi-HB or to fulfill our contractual obligations, with the result that our future business, financial condition and results of operations will suffer.

We may not generate sufficient cash flow from our biopharmaceutical and antibody products or obtain financing necessary to fund our research and development activity at an appropriate level.

We have incurred and expect to continue incurring significant expenses associated with our biopharmaceutical research and development activities, including the cost of clinical trials relating to product development and marketing expenses relating to product introduction. Products under development may not generate sales for several years or at all. We currently do not have the financial resources to concurrently fund all of our biopharmaceutical product development programs to completion. Our ability to continue to fund all of our concurrent ongoing research and development activities is currently dependent on our ability to generate sales from our biopharmaceutical and antibody products or obtain financing. There can be no assurance, therefore, that we will be able to continue to fund our research and development activities at the level required to commercialize all of our biopharmaceutical product development programs, and if we are required to reduce the funding for certain of our research and development activities, this could have a material adverse effect on our future prospects.

We may enter into strategic alliances which may not be successful and may adversely affect our ability to develop our products.

We are pursuing strategic alliances with third parties for the development and/or commercialization of certain of our biopharmaceutical products. No assurance can be given that we will be successful in these efforts or, if successful, that the collaborators will conduct their activities in a timely manner. If we are not successful in our efforts, our ability to continue to develop our products may be adversely affected. Even if we are successful, if any of our collaborative partners violate or terminate their agreements with us or otherwise fail to conduct their collaborative activities in a timely manner, the development or commercialization of products could be delayed, and we might be required to devote significant additional resources to product development and commercialization or terminate certain development programs. In addition, there can be no assurance that disputes will not arise in the future with respect to the ownership of rights to any technology developed with third parties. These and other possible disagreements between collaborators and us could lead to delays in the collaborative research, development

or commercialization of certain products or could require or result in litigation or arbitration, which would be time-consuming and expensive and could have a material adverse effect on our future business, financial condition and results of operations.

We may not be able to successfully develop and commercialize new biopharmaceutical products in a timely manner, which could adversely impact our future operations.

Our future success will depend on our ability to achieve scientific and technological advances and to translate such advances into commercially competitive products on a timely basis. Our biopharmaceutical products under development are at various stages, and substantial further development, pre-clinical testing and clinical trials will be required to determine their technical feasibility and commercial viability. The proposed development schedules for these products may be affected by a variety of factors, including technological difficulties, competition, failure to achieve desired results in clinical trials, proprietary technology positions of others, reliance on third parties for manufacturing, failure to market effectively, changes in government regulation and funding. Positive results for a product in a clinical trial do not necessarily assure that positive results will be obtained in future clinical trials or that government approval to commercialize the product will be obtained. In addition, any delay in the development, introduction or marketing of our products under development could result either in such products being marketed at a time when their cost and performance characteristics would not be competitive in the marketplace or in a shortening of their commercial lives. There can be no assurance that our biopharmaceutical products under development will prove to be technologically feasible, commercially viable and able to obtain necessary regulatory approvals and licenses on a timely basis, if at all. Our failure to successfully develop and commercialize in a timely manner our biopharmaceutical products and obtain necessary regulatory approvals could have a material adverse effect on our future operations. In particular, our failure to obtain FDA approval for StaphVAX on a timely basis could adversely affect our market valuation.

The market may not be receptive to our products upon their introduction.

There can be no assurance that any of our products in development will achieve market acceptance. The degree of market acceptance will depend upon a number of factors, including the receipt of regulatory approvals, the establishment and demonstration in the medical community of the clinical efficacy and safety of our products and their potential advantages over existing treatment methods, the prices of such products, and reimbursement policies of government and third party payers. The failure of our product pipeline to gain market acceptance could have a material adverse effect on our future business, financial condition and results of operations.

The loss of any one of our remaining major antibody customers or a significant reduction in their purchases could materially and adversely affect our future business, financial condition and results of operations.

Our antibody sales are currently concentrated among a few large pharmaceutical companies. During the 2002, 2001 and 2000 fiscal years, antibody sales to our top two customers collectively accounted for approximately 74%, 66%, and 60%, respectively, of our antibody sales. Our contract with one of these customers, under which we recorded no margin, expired during the second quarter of fiscal 2003. We have entered into a new contract with this customer for a substantially lower volume of sales limited to non-specific antibodies at customary commercial margins for non-specific antibody products. The loss of certain remaining major customers or a material reduction in these major customers' purchases of antibodies could have a material adverse effect upon our future business, financial condition and results of operations. If these customers are unable to comply with FDA regulations and non-U.S. regulations, their manufacturing facilities may be temporarily closed which will reduce the need for antibodies provided by us. Plant closures and reductions in customers' production because of FDA regulatory problems have occurred in recent years, and our financial performance has been adversely affected as a result. There can be no assurance that the customer regulatory problems, which are not within our control, will not reoccur with an adverse impact on us in the future.

We are unable to pass through certain cost increases to our antibody product customers with whom we have supply contracts.

A significant amount of our antibodies are sold under contracts that extend for a period up to one year. Certain of these contracts do not permit us to increase prices during the year except to reflect changes in customer specifications and new governmental regulations. If our costs of collecting antibodies under these certain contracts rise for reasons other than changes in customer specifications and new governmental regulations, we are unable to

pass on these cost increases to our antibody product customers except with the consent of the customer. Moreover, our existing contracts do not generally permit us to expeditiously take advantage of market changes that could benefit us.

If we fail to comply with extensive regulations enforced by the FDA and its foreign counterparts, the sale of our current products and the commercialization of our product candidates would be prevented or delayed.

Research, pre-clinical development, clinical trials, manufacturing and marketing of our products are subject to extensive regulation by various government authorities in the U.S. The process of obtaining FDA and other required regulatory approvals is lengthy and expensive, and the time required for such approvals is uncertain. The approval process is affected by such factors as the severity of the disease, the availability of alternative treatments, and the risks and benefits demonstrated in clinical trials. The FDA also may require post-marketing surveillance to monitor potential adverse effects of the product. Congress or the FDA in specific situations can modify the regulatory process. Many of our clinical trials are at a relatively early stage and, except for Nabi-HB, WinRho SDF, PhosLo, Autoplex T, Aloprim and certain non-specific and specialty antibody products, no approval from the FDA or any other government agency for the manufacturing or marketing of any other products under development has been granted. There can be no assurance that we will be able to obtain the necessary approvals for manufacturing or marketing of any of our products. Failure to obtain additional FDA approvals of products currently marketed or FDA approval for products under development could have a material adverse effect on our future business, financial condition and results of operations. Once approved, a product's failure to comply with applicable regulatory requirements could, among other things, result in warning letters, fines, suspension or revocation of regulatory approvals, product recalls or seizures, operating restrictions, injunctions and criminal prosecutions.

Although we do not have material sales of our biopharmaceutical products outside the U.S., our goal is to expand our non-U.S. presence for these products. Distribution of our products outside the U.S. is subject to extensive government regulation. These regulations, including the requirements for approvals or clearance to market, the time required for regulatory review and the sanctions imposed for violations, vary from country to country. There can be no assurance that we will obtain regulatory approvals in such countries or that we will not be required to incur significant costs in obtaining or maintaining our foreign regulatory approvals. In addition, the export by us of certain of our products that have not yet been cleared for domestic commercial distribution may be subject to FDA export restrictions. Failure to obtain necessary regulatory approvals, the restriction, suspension or revocation of existing approvals or any other failure to comply with regulatory requirements would have a material adverse effect on our future business, financial condition and results of operations.

Our U.S. manufacturing, antibody collection, labeling, storage and distribution activities also are subject to strict regulation and licensing by the FDA. Our biopharmaceutical manufacturing facility in Boca Raton, Florida is subject to periodic inspection by the FDA, and from time to time, we may receive notices of deficiencies from the FDA as a result of such inspections. Our antibody collection centers in the U.S. are also subject to periodic inspection by the FDA, and from time to time we may receive notices of deficiencies from the FDA as a result of such inspections. Our failure or the failure of our biopharmaceutical manufacturing facility or our antibody collection centers to continue to meet regulatory standards or to remedy any such deficiencies could result in corrective action by the FDA, including closure of our biopharmaceutical manufacturing facility or one or more antibody collection centers and fines or penalties. New regulations may be enacted and existing regulations or their interpretation or enforcement are subject to change. Therefore, there can be no assurance that we will be able to continue to comply with any regulations or that the costs of such compliance will not have a material adverse effect on our future business, financial condition and results of operations.

We may be subject to costly and damaging liability claims.

Antibodies collected by us, antibody-based products manufactured by us, antibody-based products marketed by us and antibody-based products manufactured by our customers run the risk of being HIV-contaminated or contaminated with another virus. As a result, suits may be filed against our customers and us claiming that the plaintiffs became infected with HIV or other viruses as a result of using the contaminated products. Such suits have been filed in the past related to HIV-contaminated antibodies, and in a number of suits we were one of several defendants. With the exception of one suit that is still pending, all of these suits have been dismissed without liability to us. No assurance can be given that additional lawsuits relating to infection with HIV or other

viruses will not be brought against us by persons who have become infected with HIV or other viruses from antibody fractionates.

Pharmaceutical companies are increasingly subject to litigation, including class action suits, and governmental and administrative investigations and proceedings related to product pricing and marketing practices. We have been named as one of over 40 pharmaceutical and biopharmaceutical defendants in three class action lawsuits. See "Legal Proceedings" at Item 3 in Part I of our Form 10-K for the fiscal year ended December 28, 2002 and at Item 1 in Part II of our Forms 10-Q for the quarters ended March 29, 2003 and June 28, 2003. There can be no assurance that lawsuits based on other causes of action will not be filed or that we will be successful in the defense of any or all existing or potential future lawsuits. Defense of suits can be expensive and time-consuming, regardless of the outcome, and an adverse result in one or more suits could have a material adverse effect on our future business, financial condition and results of operations.

We may not be able to maintain sufficient product liability and directors and officers insurance to cover claims against us.

Product liability and directors and officers insurance for the biopharmaceutical industry is generally expensive to the extent it is available at all. There can be no assurance that we will be able to maintain such insurance on acceptable terms or that we will be able to secure increased coverage if the commercialization of our products progresses, or that existing or future claims against us will be covered by our product liability insurance. Moreover, there can be no assurance that the existing coverage of our insurance policy and/or any rights of indemnification and contribution that we may have will offset existing or future claims. A successful claim against us with respect to uninsured liabilities or in excess of insurance coverage and not subject to any indemnification or contribution could have a material adverse effect on our future business, financial condition and results of operations.

We may not be able to maintain sufficient property insurance on our facilities in Florida.

We maintain significant real property assets in Florida. Property insurance for companies with a high concentration of property assets in Florida is generally expensive to the extent it is available at all. There can be no assurance that we will be able to maintain such insurance on acceptable terms or that we will be able to secure increased coverage if the value of our property increases.

We may not be able to raise necessary additional capital on acceptable terms, if at all.

We may need to raise additional capital to increase funding of our product research, development and marketing activities or to acquire additional products. We may seek additional funding through public or private equity or debt financing, collaborative arrangements with strategic partners or from other sources. There can be no assurance, however, that additional financing will be available on acceptable terms, if at all. If adequate funds are not available, we may have to defer certain investments in the areas of research, product development, manufacturing, marketing activity or business development, or otherwise modify our business strategy, and our future business and future prospects could be materially and adversely affected.

We may not maintain compliance with our debt agreement.

We may not maintain compliance with the covenants required by our debt agreement. This potential non compliance may limit our ability to have access to funds under the agreement without receipt of a waiver from the lender, which may not be given. In addition, our borrowing base as defined in the agreement is limited by eligible accounts receivable and inventory balances. If funds are not available to us under our debt agreement due to non compliance with debt covenants or borrowing base limitations, we may have to defer certain investments in the areas of research, product development, manufacturing, marketing activity or business development, or otherwise modify our business strategy, and our future business and future prospects could be materially and adversely affected.

Our patents and proprietary rights may not provide sufficient protection, and patents of other companies could prevent us from developing and marketing our products.

The patent positions of biopharmaceutical firms generally are highly uncertain and involve complex legal and factual questions. There can be no assurance that existing patent applications will result in issued patents, that we will be able to obtain additional licenses to patents of others or that we will be able to develop additional patentable technology of our own. Because patent applications in the U.S. are not disclosed by the Patent and Trademark Office until patents issue, and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we were the first creator of inventions covered by our pending patent applications or that we were the first to file patent applications for such inventions. There can be no assurances that any patents issued to us will provide us with competitive advantages or will not be challenged by others. Furthermore, there can be no assurance that others will not independently develop similar products, or, if patents are issued to us, design around such patents.

A number of biopharmaceutical companies, biotechnology companies, universities and research institutions have filed patent applications or received patents relating to products or processes competitive with or similar to ours. Some of these applications or patents may be competitive with our applications or conflict in certain respects with claims made under our applications. Such a conflict could result in a significant reduction of the coverage of our patents, if issued. In addition, if patents that contain competitive or conflicting claims are issued to others and such claims are ultimately determined to be valid, we may be required to obtain licenses to these patents or to develop or obtain alternative technology. If any licenses are required, there can be no assurance that we will be able to obtain any such licenses on commercially favorable terms, if at all. Our failure to obtain a license to any technology that we may require in order to commercialize our products could have a material adverse effect on our future business, financial condition and results of operations. Litigation, which could result in substantial cost to us, may also be necessary to enforce any patents issued to us or to determine the scope and validity of third party proprietary rights.

We also rely on secrecy to protect our technology, especially where patent protection is not believed to be appropriate or obtainable. We maintain strict controls and procedures regarding access to and use of our proprietary technology and processes. However, there can be no assurance that these controls or procedures will not be violated, that we would have adequate remedies for any violation, or that our trade secrets will not otherwise become known or be independently discovered by competitors.

We compete with larger, better financed and more mature biopharmaceutical and biotechnology companies who are capable of developing new products and approaches that could make our products obsolete.

Competition in the development of biopharmaceutical products is intense, both from biopharmaceutical and biotechnology companies, and is expected to increase. Many of our competitors have greater financial resources and larger research and development staffs than us, as well as substantially greater experience in developing products, obtaining regulatory approvals, and manufacturing and marketing biopharmaceutical products. Competition with these companies involves not only product development, but also acquisition of products and technologies from universities and other institutions. We also compete with universities and other institutions in the development of biopharmaceutical products, technologies and processes and for qualified scientific personnel. There can be no assurance that our competitors will not succeed in developing technologies and products that are more effective or affordable than those being developed by us. In addition, one or more of our competitors may achieve product commercialization or patent protection for competitive products earlier than us, which would preclude or substantially limit sales of our products. Further, several companies are attempting to develop and market products to treat certain diseases based upon technology that would lessen or eliminate the need for human antibodies. The successful development and commercialization by any of our competitors of any such product could have a material adverse effect on our future business, financial condition and results of operations.

We compete for antibody donors with pharmaceutical companies, other independent antibody suppliers, other commercial collection companies and non-profit organizations such as the American Red Cross and community blood banks that solicit the donation of blood. A number of these competitors have access to greater financial, marketing and other resources than us. We compete for donors by offering financial incentives to donors to compensate them for their time and inconvenience, providing outstanding customer service to our donors,

implementing programs designed to attract donors through education as to the uses for collected antibodies, encouraging groups to have their members become donors and improving the attractiveness of our antibody collection facilities. We also compete with other independent antibody suppliers that sell antibodies principally to pharmaceutical companies that process antibodies into finished products. If we are unable to maintain and expand our donor base, our future business, financial condition and results of operations will be materially and adversely affected.

There are potential limitations on third-party reimbursement and other pricing-related matters that could reduce the sales of our products and may delay or impair our ability to generate sufficient revenues.

Our ability to commercialize our biopharmaceutical products and related treatments will depend in part upon the availability of, and our ability to obtain adequate levels of, reimbursement from government health administration authorities, private healthcare insurers and other organizations. Significant uncertainty exists as to the reimbursement status of newly approved healthcare products, and there can be no assurance that adequate third party payer coverage will be available, if at all. Inadequate levels of reimbursement may prohibit us from maintaining price levels sufficient for realization of an adequate return on our investment in developing new biopharmaceutical products and could result in the termination of production of otherwise commercially viable products. Government and other third party payers are increasingly attempting to contain healthcare costs by limiting both the coverage and level of reimbursement for new products approved for marketing by the FDA and by refusing, in some cases, to provide any coverage for disease indications for which the FDA has not granted marketing approval. Also, the trend towards managed healthcare in the U.S. 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, may all result in lower prices for our 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 our future business, financial condition and results of operations.

There can be no assurance that reimbursement in the U.S. or foreign countries will be available for our products, or, if available, will not be decreased in the future, or that reimbursement amounts will not reduce the demand for, or the price of, our products. The unavailability of third party reimbursement or the inadequacy of the reimbursement for medical treatments using our products could have a material adverse effect on our future business, financial condition and results of operations. Moreover, we are unable to forecast what additional legislation or regulation, 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 regulation would have on our future business.

Substantial sales of our common stock could cause our stock price to decline.

If our existing stockholders, including the selling security holders, sell a large number of shares of our common stock in the market or if the public market perceives that such a sale might occur, the market price for our common stock could decline significantly. All of the shares offered by this prospectus will be freely tradable without restriction or further registration under the federal securities laws unless purchased by an "affiliate" as that term is defined in Rule 144 under the Securities Act of 1933, as amended.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information contained in this prospectus or incorporated herein by reference. We have not authorized anyone else to provide you with different information. The selling security holders 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 page of this prospectus, regardless of the time of delivery of this prospectus or any sale of common stock.

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding us and other issuers that file electronically with the SEC.

We make available free of charge through our Internet website at <http://www.nabi.com> our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or furnish it to the SEC. The information contained on our website or any other website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus.

We incorporate by reference the filed documents listed below, except as superseded, supplemented or modified by this prospectus, 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"):

- our Annual Report on Form 10-K for the fiscal year ended December 28, 2002;
- our Quarterly Report on Form 10-Q for the quarter ended March 29, 2003;
- our Current Report on Form 8-K filed on June 23, 2003;
- our Current Report on Form 8-K filed on July 14, 2003;
- our Quarterly Report on Form 10-Q for the quarter ended June 28, 2003;
- our Current Report on Form 8-K filed on August 15, 2003, as amended on October 7, 2003; and
- our Current Report on Form 8-K filed on October 9, 2003.

The reports and other documents that we file after the date of this prospectus will update, supplement and supersede the information in this prospectus. All documents that we file after the date of this prospectus pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus.

We will provide you with a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus at no cost to you upon written or oral request to:

Nabi Biopharmaceuticals
5800 Park of Commerce Boulevard N.W.
Boca Raton, FL 33487
(561) 989-5800
Attn: Vice President, Investor and Public Relations

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as “anticipate,” “estimate,” “plans,” “projects,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend” and similar words or phrases. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus. Among the key factors that could cause actual results to differ materially from the forward-looking statements:

- competitive factors;
- general economic conditions;
- relationships with pharmaceutical and biotechnology companies;
- the ability to develop safe and efficacious drugs;
- variability of royalty, license and other revenue;
- ability to enter into future collaborative agreements;
- governmental regulation and suspension;
- changes in industry practices; and
- one-time or non-recurring events.

Because the risk factors referred to above, as well as the risk factors beginning on page 3 of this prospectus, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

SECURITY HOLDERS

We are registering for resale shares of our common stock held by the security holders identified below. The security holders acquired the resale shares from us in a private placement. We are registering the shares to permit the security holders and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a security holder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate. The following table sets forth:

- the name of the security holders,
- the number and percent of shares of our common stock that the security holders beneficially owned prior to the offering for resale of the shares under this prospectus,
- the number of shares of our common stock that may be offered for resale for the account of the security holders under this prospectus, and
- the number and percent of shares of our common stock to be beneficially owned by the security holders after the offering of the resale shares (assuming all of the offered resale shares are sold by the security holders).

The number of shares in the column "Number of Shares Being Offered" represents all of the shares that each security holder may offer under this prospectus. We do not know how long the security holders will hold the shares before selling them or how many shares they will sell and we currently have no agreements, arrangements or understandings with any of the security holders regarding the sale of any of the resale shares. The shares offered by this prospectus may be offered from time to time by the security holders listed below.

This table is prepared solely based on information supplied to us by the listed security holders, any Schedules 13D or 13G and Forms 3 and 4, and other public documents filed with the SEC, and assumes the sale of all of the resale shares. The applicable percentages of beneficial ownership are based on an aggregate of 46,438,833 shares of our common stock issued and outstanding on September 27, 2003, adjusted as may be required by rules promulgated by the SEC.

Security Holders	Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Shares Beneficially Owned After Offering	
	Number	Percent		Number	Percent
Baystar Capital II L.P.	500,000	1.1%	500,000	—	—
Bonanza Master Fund Ltd.	333,333	*	333,333	—	—
Common Fund Hedged Equity	129,100	*	49,000	80,100	*
Deerfield International Limited	2,016,000	4.3%	480,000	1,536,000	3.3%
Deerfield Partners, L.P.	2,184,000	4.7%	520,000	1,664,000	3.6%
JALAA Equities, L.P.	1,388,121	3.0%	350,000	1,038,121	2.2%
Knott Partners LP	500,000	1.1%	189,000	311,000	*
Matterhorn Offshore Fund	178,100	*	75,000	103,100	*
Merlin BioMed Long Term Appreciation Fund, L.P.	15,000	*	15,000	—	—
Merlin BioMed Offshore Master Fund, L.P.	110,000	*	110,000	—	—
Merlin BioMed Private Equity Fund, LP	200,000	*	200,000	—	—
Richard H Morrison LLC	283,600	*	185,000	98,600	*
SF Capital Partners Ltd.	666,667	1.4%	666,667	—	—
Shoshone Partners LP	75,800	*	29,000	46,800	*
Smithfield Fiduciary, LLC	500,000	1.1%	500,000	—	—
Special Situations Cayman Fund L.P.	150,000	*	150,000	—	—
Special Situations Fund III, L.P.	450,000	1.0%	450,000	—	—
Special Situations Private Equity Fund L.P.	100,000	*	100,000	—	—
UBS O'Connor LLC F/B/O O'Connor Global Convertible Arbitrage Master Ltd.(1)	87,500	*	87,500	—	—
UBS O'Connor LLC F/B/O PIPES Corporate Strategies Ltd.(1)	87,500	*	87,500	—	—

* Less than 1%.

- (1) UBS O'Connor LLC is affiliated with UBS Securities LLC, a registered broker-dealer. UBS O'Connor LLC purchased the shares in the ordinary course of its business and at the time of this purchase, did not have any agreements or understandings, directly or indirectly, with any person to distribute these securities. UBS Securities LLC and UBS O'Connor LLC make their investment decisions separately. UBS O'Connor LLC is in the business of making principal investments in securities.

PLAN OF DISTRIBUTION

The selling security holders may sell the shares being offered from time to time in one or more transactions:

- on the Nasdaq National Market or otherwise;
- in the over-the-counter market;
- at negotiated prices, at market prices at the time of sale, at varying prices determined at the time of sale or at fixed prices;
- through the writing of options on shares, whether the options are listed on an options exchange or otherwise; or
- a combination of such methods of sale.

The selling security holders may sell the shares pursuant to Rule 144 adopted under the Securities Act, as permitted by that rule. The selling security holders may effect transactions by selling shares directly to purchasers or to or through broker-dealers. The broker-dealers may act as agents or principals. The broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling security holders or the purchasers of the shares. The compensation of any particular broker-dealer may be in excess of customary commissions. Because the selling security holders and broker-dealers that participate with the selling security holders in the distribution of shares may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, the selling security holders will be subject to the prospectus delivery requirements of the Securities Act. Any commissions received by them and any profit on the resale of shares may be deemed to be underwriting compensation.

The selling security holders have 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. There is no underwriter or coordinating broker acting in connection with the proposed sale of shares by the selling security holders.

The shares will be sold through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Each selling shareholder will be subject to applicable provisions of the Exchange Act and the associated rules and regulations under the Exchange Act, including Regulation M, which provisions may limit the timing of purchases and sales of shares of our common stock by the selling security holders. We will make copies of this prospectus available to the selling security holders and have informed them of the need to deliver copies of this prospectus to purchasers at or prior to the time of any sale of the shares.

We will bear all costs, expenses and fees in connection with the registration of the shares. The selling security holders will bear all commissions and discounts, if any, attributable to the sales of the shares. The selling security holders may agree to indemnify any broker-dealer or agent that participates in transactions involving sales of the shares against certain liabilities, including liabilities arising under the Securities Act. The selling security holders have agreed to indemnify certain persons, including broker-dealers and agents, against certain liabilities in connection with the offering of the shares, including liabilities arising under the Securities Act.

Upon notification to us by a selling security holder that any material arrangement has been entered into with broker-dealers for the sale or purchase of shares, we will file a supplement to this prospectus, if required, disclosing:

- the name of the participating broker-dealers;
- the number of shares involved;
- the price at which such shares were sold;
- the commissions paid or discounts or concessions allowed to such broker-dealers, where applicable;
- that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus; and
- other facts material to the transaction.

In addition, upon being notified by a selling security holder that a donee or pledgee intends to sell more than 500 shares, we will file a supplement to this prospectus.

The security holders may enter into hedging transactions with broker-dealers in connection with distributions of the resale shares. In these transactions, broker-dealers may engage in short sales of the shares to offset the positions they assume with the security holders. The security holders also may sell shares short and redeliver the shares to close out their short positions. The security holders may enter into option or other transactions with broker-dealers that require the delivery to the broker-dealer of the resale shares. The broker-dealer may then resell or otherwise transfer the shares under this prospectus. The security holders also may loan or pledge the resale shares to a broker-dealer. The broker-dealer may sell the loaned or pledged shares under this prospectus.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the resale shares by the selling security holders. All proceeds from the sale of the resale shares will be solely for the accounts of the selling security holders.

LEGAL MATTERS

The validity of the issuance of the shares of common stock offered hereby will be passed upon for us by Nutter, McClennen & Fish, LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements of Nabi Biopharmaceuticals appearing in Nabi Biopharmaceuticals' Annual Report on Form 10-K for the year ended December 28, 2002, have been audited by Ernst & Young LLP, independent certified public accountants, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The statements of revenues and certain costs and expenses of the PhosLo Product Line of Braintree Laboratories, Inc. appearing in Nabi Biopharmaceuticals' Current Report on Form 8-K filed on August 15, 2003, as amended on October 7, 2003, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such statements of revenues and certain costs and expenses are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or any prospectus supplement. This prospectus is not an offer of these securities in any jurisdiction where an offer and sale is not permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

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5,077,000 Shares
Common Stock

NABI
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Prospectus

October 9, 2003