

NAVIDEA BIOPHARMACEUTICALS, INC.

Form S-3/A

October 11, 2012

As filed with the Securities and Exchange Commission on October 11, 2012

Registration No. 333-184173

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

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**Pre-Effective Amendment No. 1 to**

**Form S-3**

**REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

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**NAVIDEA BIOPHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

Delaware	31-1080091
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

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425 Metro Place North, Suite 450

Dublin, Ohio 43017-1367

(614) 793-7500

(Address, including zip code, and telephone number, including

area code, of registrant's principal executive offices)

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Brent L. Larson

Senior Vice President and Chief Financial Officer

Navidea Biopharmaceuticals, Inc.

425 Metro Place North, Suite 450

Dublin, Ohio 43017-1367

(614) 793-7500

(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

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Approximate date of commencement 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:

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” and “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

**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.**

**Subject to completion, dated October 11, 2012**

The information in this prospectus is not complete and may be changed. We may not sell these securities until the Registration Statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

**NAVIDEA BIOPHARMACEUTICALS, INC.**

300,000 Shares

Common Stock

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This prospectus relates to the resale from time to time of these shares of our common stock by the selling stockholder identified in this prospectus. This prospectus may be used only by the stockholder listed under the section entitled “selling stockholder” in this prospectus for the resale of up to 300,000 shares of our common stock, \$0.001 par value. The common stock offered by this prospectus may be offered by the selling stockholder from time to time in transactions reported on the NYSE MKT, in negotiated transactions, or otherwise, or by a combination of these methods, at fixed prices which may be changed, at market prices at the time of sale, at prices related to market prices, or at negotiated prices. We will not receive any proceeds from the sale of the shares by the selling stockholder.

Our shares of common stock are traded on the NYSE MKT under the symbol “NAV.B.” On October 10, 2012, the closing sale price of our common stock was \$2.57 per share.

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**Investing in our securities involves a high degree of risk. Before investing in our securities, we recommend that you carefully read this entire prospectus, including the “Risk Factors” section beginning on page 4, any applicable supplements to this prospectus and the documents we file with the Securities and Exchange Commission from time to time.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved of anyone’s investment in these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

**Navidea Biopharmaceuticals, Inc.**

425 Metro Place North, Suite 450

Dublin, OH 43017-1367

(614) 793-7500

The date of this prospectus is \_\_\_\_\_, 2012

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## **ABOUT THIS PROSPECTUS**

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the Commission, utilizing a “shelf” registration process. This prospectus relates to shares of common stock of Navidea Biopharmaceuticals, Inc. that may be sold by Alseres Pharmaceuticals, Inc., the selling stockholder identified in this prospectus. The shares of common stock offered under this prospectus by the selling stockholder were issued pursuant to a sublicense agreement, between the selling stockholder and us, dated July 31, 2012. We are registering the offer and sale of the shares to satisfy registration rights we have granted to the selling stockholder in a registration rights agreement between the selling stockholder and us, dated July 31, 2012. We will not receive any proceeds from the sale of these shares by the selling stockholder. We will bear all costs associated with this registration statement. This prospectus provides you with a general description of the securities that may be offered by the selling stockholder, and may be supplemented from time to time. These prospectus supplements may add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “Where You Can Find More Information and Incorporation by Reference.”

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplements. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any accompanying prospectus supplement. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor does this prospectus and any accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

In this prospectus, “we,” “us,” “our” and “Navidea” refer to Navidea Biopharmaceuticals, Inc. and its subsidiaries.

## **ABOUT NAVIDEA BIOPHARMACEUTICALS, INC.**

Navidea Biopharmaceuticals, Inc., a Delaware corporation, is a biopharmaceutical company focused on the development and commercialization of precision diagnostics and radiopharmaceutical agents. We are currently developing four radiopharmaceutical agent platforms. The first, Lymphoseek<sup>®</sup> is intended to be used to assess the



spread of certain solid tumor cancers into the lymphatic system. The second, NAV4694, is intended to aid in the imaging and evaluation of patients with signs or symptoms of cognitive impairment such as Alzheimer's disease (AD). The third, RIGScan<sup>TM</sup>, is intended to be used during surgery to help surgeons locate occult or metastatic cancer, with a primary focus on colorectal cancer. The fourth, E-IACFT (CFT), is an Iodine-123 radiolabeled imaging agent being developed as an aid in the diagnosis of Parkinson's disease and other movement disorders, with potential use as a diagnostic aid in dementia. All of these drug products are still in development and must be cleared for marketing by the appropriate regulatory authorities before they can be sold in any markets.

We believe that shareholder value can be greatly enhanced through development of our radiopharmaceutical product candidates. We also plan to evaluate opportunities to expand our product pipeline by acquiring at attractive valuations or engaging in license arrangements involving other drug development programs with substantial potential. Initially, we intend to focus on identifying later stage product opportunities within the radiopharmaceutical sector; however, we may evaluate opportunities in other sectors to the extent we become aware of them during our pipeline expansion evaluation process.

We were originally incorporated in Ohio in 1983 and reincorporated in Delaware in 1988. Our executive offices are located at 425 Metro Place North, Suite 450, Dublin, Ohio 43017. Our telephone number is (614) 793-7500. Our corporate website is [www.navidea.com](http://www.navidea.com). This reference to our website is a textual reference only. We do not incorporate the information on our website into this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

## RISK FACTORS

An investment in our common stock is highly speculative, involves a high degree of risk, and should be made only by investors who can afford a complete loss. You should carefully consider the following risk factors, together with the other information in this prospectus, including our financial statements and the related notes, before you decide to buy our common stock. Our most significant risks and uncertainties are described below; however, they are not the only risks we face. If any of the following risks actually occur, our business, financial condition, or results of operations could be materially adversely affected, the trading of our common stock could decline, and you may lose all or part of your investment therein.

***We cannot guarantee that we will obtain regulatory approval to manufacture or market any of our drug candidates and our approval to market our products may be delayed as a result of the regulatory review process.***

Obtaining regulatory approval to market drugs to diagnose or treat cancer is expensive, difficult and risky. Preclinical and clinical data as well as information related to the chemistry, manufacturing and control (CMC) processes of drug production can be interpreted in different ways which could delay, limit or preclude regulatory approval. Negative or inconclusive results, adverse medical events during a clinical trial, or issues related to CMC processes could delay, limit or prevent regulatory approval.

Our near-term financial success depends in large part on obtaining regulatory approval to market Lymphoseek in the U.S. The NDA for Lymphoseek, intended for use in intraoperative lymphatic mapping across a broad range of cancers, was originally submitted to the U.S. Food and Drug Administration (FDA) for review in August 2011. As a part of that review, FDA has reviewed the pre-clinical, clinical and CMC data supporting our application, and, as is also typical of such reviews, has conducted site audits of our facilities and those of the clinical sites where the referenced clinical trials were performed, as well as of contract suppliers and third party vendors being used in the manufacturing and quality assessment processes for Lymphoseek. During the course of their review of the NDA and the site and facility audits conducted by FDA, they raised questions or issues regarding the approvability of Lymphoseek to which we or our third party suppliers and vendors responded as a part of the ongoing dialogue as we believe was typical of a NDA review.

Following FDA's acceptance of our Lymphoseek NDA filing, FDA established a Prescription Drug User Fee Act (PDUFA) date for Lymphoseek of June 10, 2012. In April 2012, we were notified by FDA that our PDUFA date had been modified to September 10, 2012, a 90-day extension. On September 10, 2012, we received a Complete Response Letter (CRL) from FDA, denying our application for approval of Lymphoseek. We believe the decision was focused on deficiencies identified by FDA during their site inspections of third-party contract manufacturing, and was not related to any efficacy or safety data filed within the Lymphoseek NDA. We are in the process of having further dialogue with FDA and our third-party manufacturers to clarify the specific nature of the deficiencies. As we gain further clarity, we will continue to assist the contract manufacturers in implementing corrective action plans to address

the deficiencies, thereby allowing us to resubmit to the NDA for review.

Further review of the resubmission to the NDA, or other inquiries by FDA, could raise additional questions or issues, requiring us to prepare responses or submit additional data that could further delay approval of the NDA. Further delays in the approval of the NDA could result in additional delays in our expected revenue from Lymphoseek and increase the use of our cash until any deficiencies cited by FDA are corrected and another resubmission to the NDA is submitted and reviewed by FDA. Such potential consequences may negatively affect our business, financial condition and results of operations in a material way. We cannot assure you that Lymphoseek will achieve regulatory approval and commercial launch.

***Our radiopharmaceutical product candidates will remain subject to ongoing regulatory review even if they receive marketing approval. If we fail to comply with continuing regulations, we could lose these approvals and the sale of our products could be suspended.***

Even if we receive regulatory clearance to market a particular product candidate, the approval could be conditioned on us conducting additional costly post-approval studies or could limit the indicated uses included in our labeling. Moreover, the product may later cause adverse effects that limit or prevent its widespread use, force us to withdraw it from the market or impede or delay our ability to obtain regulatory approvals in additional countries. In addition, any contract manufacturer we use in the process of producing a product and its facilities will continue to be subject to FDA review and periodic inspections to ensure adherence to applicable regulations. After receiving marketing clearance, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping related to the product will remain subject to extensive regulatory requirements. We may be slow to adapt, or we may never adapt, to changes in existing regulatory requirements or adoption of new regulatory requirements.

If we fail to comply with the regulatory requirements of FDA and other applicable U.S. and foreign regulatory authorities or previously unknown problems with our products, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers or manufacturing processes;
- warning letters;
- civil or criminal penalties;
- fines;
- injunctions;
- product seizures or detentions;
- import bans;
- voluntary or mandatory product recalls and publicity requirements;
- suspension or withdrawal of regulatory approvals;
- total or partial suspension of production; and
- refusal to approve pending applications for marketing approval of new drugs or supplements to approved applications.

***Even if our drug candidates are successful in clinical trials, we may not be able to successfully commercialize them.***

With the historical exception of our discontinued medical device businesses, we have dedicated and will continue to dedicate substantially all of our resources to the research and development of our radiopharmaceutical technologies

and related compounds. All of our compounds currently are in research or development or regulatory review and have not received marketing approval.

Prior to commercialization, each product candidate requires significant research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. The development of radiopharmaceutical technologies and compounds, including those we are currently developing, is unpredictable and subject to numerous risks. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons including that they may:

- be found ineffective or cause harmful side effects during preclinical testing or clinical trials;
  - fail to receive necessary regulatory approvals;
- be difficult to manufacture on a scale necessary for commercialization;
  - be uneconomical to produce;
- fail to achieve market acceptance; or
- be precluded from commercialization by proprietary rights of third parties.

The occurrence of any of these events could adversely affect the commercialization of our products. Products, if introduced, may not be successfully marketed and/or may not achieve customer acceptance. If we fail to commercialize products or if our future products do not achieve significant market acceptance, we will not likely generate significant revenues or become profitable.

***If we do not successfully develop our product candidates into marketable products, we may be unable to generate significant revenue or become profitable.***

We divested our primary commercial product line, the neoprobe GDS line of gamma detection medical devices, in August 2011. Currently, we do not have any revenue generating products, and unless we are able to develop one of our product candidates, such as Lymphoseek, into an approved commercial product, we will not generate any significant revenues from product sales, milestone payments or otherwise. As discussed previously, we received a CRL regarding the Lymphoseek NDA and must resubmit it for review by FDA. NAV4694, CFT and RIGScan are in various stages of clinical development. Regulatory approval for Lymphoseek and/or additional clinical trials for NAV4694, CFT, RIGScan or other product candidates may not be successful and, even if they are, we may not be successful in developing any of them into a commercial product. In addition, many companies in the pharmaceutical industry suffer significant setbacks in advanced clinical trials even after reporting promising results in earlier trials. Even if our trials are viewed as successful, we may not get regulatory approval. Our product candidates will be successful only if:

they are developed to a stage that will enable us to commercialize them or sell related marketing rights to pharmaceutical companies;

- we are able to commercialize them in clinical development or sell the marketing rights to third parties; and
- if developed, they are approved by the regulatory authorities.

We are dependent on the achievement of these goals in order to generate revenues. The failure to generate such revenues may preclude us from continuing our research and development of these and other product candidates.

***If we are not successful in licensing or acquiring additional drug candidates or technologies to expand our product pipeline, our future product portfolio and potential profitability could be harmed.***

One component of our business strategy is to in-license drug compounds developed by other pharmaceutical and biotechnology companies or academic research laboratories. All of our product candidates in clinical development are in-licensed from third parties, including Lymphoseek, NAV4694, CFT and RIGScan. We may not successfully acquire additional drug candidates or technologies to expand our product pipeline. The number of such candidates and

technologies is limited. Competition among large pharmaceutical companies and biopharmaceutical companies for promising drug candidates and technologies is intense because such companies generally desire to expand their product pipelines through purchase or in-licensing. If we fail to expand our product pipeline, our potential future revenues may be adversely affected.

*Clinical trials for our radiopharmaceutical product candidates will be lengthy and expensive and their outcome is uncertain.*

Before obtaining regulatory approval for the commercial sale of any product candidates, we must demonstrate through preclinical testing and clinical trials that our product candidates are safe and effective for use in humans. Conducting clinical trials is a time consuming, expensive and uncertain process and may take years to complete. During 2011, we successfully completed a second Phase 3 clinical trial in subjects with breast cancer or melanoma for our most advanced radiopharmaceutical product candidate, Lymphoseek. In addition, we are enrolling subjects in a third Phase 3 clinical trial in subjects with head and neck squamous cell carcinoma.

In August 2011, we held a meeting regarding RIGScan with the Scientific Advice Working Party (SAWP) of the European Medicines Agency (EMA) and received similar guidance as we received from FDA, as well as the suggestion that we consider use of a humanized version of the RIGS antibody. With this collective guidance, we have changed our development plans from a murine-based antibody to a humanized antibody on our development and regulatory timelines. We believe that we may still be technically able to complete the necessary manufacturing steps to permit active clinical development in 2013; however, as management continues to assess the scope and required resources for the RIGS program, particularly in light of other development opportunities such as for NAV4694 and/or CFT, the timing and scope of our development and commercialization plan for RIGScan may be affected.



With respect to NAV4694, AstraZeneca has completed clinical development through a Phase 2a level. We recently commenced our clinical development through some additional Phase 2 testing, mainly intended to expand the safety population, and we intend to commence Phase 3 testing of NAV4694 in 2013, but these plans could also experience complications and delays.

With respect to CFT, Alseres Pharmaceuticals, Inc. (Alseres), the party from whom we have sublicensed CFT, had previously completed five clinical trials in over 600 subjects. Alseres received a Phase 3 Special Protocol Assessment (SPA) from FDA for CFT in 2009. We have held preliminary discussions with FDA regarding the SPA and expect to update the SPA over the coming months.

Historically, the results from preclinical testing and early clinical trials often do not predict the results obtained in later clinical trials. Frequently, drugs that have shown promising results in preclinical or early clinical trials subsequently fail to establish sufficient safety and efficacy data necessary to obtain regulatory approval. At any time during the clinical trials, we, the participating institutions, FDA or EMA might delay or halt any clinical trials for our product candidates for various reasons, including:

- ineffectiveness of the product candidate;
- discovery of unacceptable toxicities or side effects;
- development of disease resistance or other physiological factors;
- delays in patient enrollment; or

other reasons that are internal to the businesses of our potential collaborative partners, which reasons they may not share with us.

While we have achieved some level of success in our clinical trials for Lymphoseek, and our licensing partners have also achieved successful outcomes from earlier trials of NAV4694 and CFT, the results of these clinical trials, as well as pending and future trials for these and other product candidates that we may develop or acquire, are subject to review and interpretation by various regulatory bodies during the regulatory review process and may ultimately fail to demonstrate the safety or effectiveness of our product candidates to the extent necessary to obtain regulatory approval or that commercialization of our product candidates is worthwhile. Any failure or substantial delay in successfully completing clinical trials and obtaining regulatory approval for our product candidates could materially harm our business.

***If we fail to establish and maintain collaborations or if our partners do not perform, we may be unable to develop and commercialize our product candidates.***

We expect to enter into collaborative arrangements with third parties to develop and/or commercialize product candidates and are currently seeking additional collaborations. Such collaborations might be necessary in order for us to fund our research and development activities and third-party manufacturing arrangements, seek and obtain regulatory approvals and successfully commercialize our existing and future product candidates. If we fail to enter into collaborative arrangements or fail to maintain our existing collaborative arrangements, the number of product candidates from which we could receive future revenues would decline.

Our dependence on collaborative arrangements with third parties will subject us to a number of risks that could harm our ability to develop and commercialize products including that:

- collaborative arrangements may not be on terms favorable to us;
- disagreements with partners may result in delays in the development and marketing of products, termination of our collaboration agreements or time consuming and expensive legal action;

we cannot control the amount and timing of resources partners devote to product candidates or their prioritization of product candidates and partners may not allocate sufficient funds or resources to the development, promotion or marketing of our products, or may not perform their obligations as expected;

- partners may choose to develop, independently or with other companies, alternative products or treatments, including products or treatments which compete with ours;
- agreements with partners may expire or be terminated without renewal, or partners may breach collaboration agreements with us;
- business combinations or significant changes in a partner's business strategy might adversely affect that partner's willingness or ability to complete its obligations to us; and
- the terms and conditions of the relevant agreements may no longer be suitable.

The occurrence of any of these events could adversely affect the development or commercialization of our products.

***If users of our products are unable to obtain adequate reimbursement from third-party payers, or if new restrictive legislation is adopted, market acceptance of our products may be limited and we may not achieve anticipated revenues.***

Our ability to commercialize our products will depend in part on the extent to which appropriate reimbursement levels for the cost of our products and related treatment are obtained by governmental authorities, private health insurers and other organizations such as health maintenance organizations (HMOs). Third-party payers are increasingly challenging the prices charged for medical care. Also, the trend toward managed health care in the United States and the concurrent growth of organizations such as HMOs which could control or significantly influence the purchase of health care services and products, as well as legislative proposals to further reform health care or reduce government insurance programs, may all result in lower prices for our products if approved for commercialization. The cost containment measures that health care payers and providers are instituting and the effect of any health care reform could materially harm our ability to sell our products at a profit.

While we expect a “pass-through” code related to Lymphoseek’s designation as a new chemical entity to be established by the U.S. Center for Medicaid and Medicare Services (CMS) following FDA approval, if achieved, there can be no assurances that such pass-through code will be received from CMS, and if not received, that the cost of Lymphoseek will be absorbed by the healthcare providers. In addition, there can be no assurance that even if a pass-through code is obtained, that following the expiration of such code (generally two to three years following approval), that we will be successful in establishing a separate permanent code for reimbursement of Lymphoseek and therefore that the cost of Lymphoseek may be need to be absorbed by the institution as a part of the bundled procedural code for the surgical procedure in which Lymphoseek is used. If this is the case, our expectations of the pricing we expect to achieve for Lymphoseek and the related potential revenue may be significantly diminished.

***We may be unable to establish or contract for the pharmaceutical manufacturing capabilities necessary to develop and commercialize our potential products.***

We are in the process of establishing commercial manufacturing capabilities on a third-party contract basis for our Lymphoseek product and clinical manufacturing capabilities for our other radiopharmaceutical compounds. We intend to rely on third-party contract manufacturers to produce sufficiently large quantities of drug materials that are and will be needed for clinical trials and commercialization of our potential products. Third-party manufacturers may not be able to meet our needs with respect to timing, quantity or quality of materials.

We have a supply agreement with Reliable Biopharmaceutical Corporation (Reliable) to manufacture the drug substance for our Lymphoseek product and we currently use OSO BioPharmaceuticals Manufacturing, LLC (OsoBio) for the finishing and vialing of our Lymphoseek product. However, if we are unable to contract for a sufficient supply of needed materials on acceptable terms, or if we should encounter delays or difficulties in our relationships with manufacturers, our clinical trials may be delayed, thereby delaying the submission of product candidates for regulatory approval and the market introduction and subsequent commercialization of our potential products. Any such delays may lower our revenues and potential profitability.

We and any third-party manufacturers that we may use must continually adhere to current Good Manufacturing Practices (cGMPs) and regulations enforced by FDA through its facilities inspection program and/or foreign regulatory authorities where our products will be tested and/or marketed. If our facilities or the facilities of third-party manufacturers cannot pass a pre-approval plant inspection, FDA and/or foreign regulatory authorities will not grant approval to market our product candidates. In complying with these regulations and foreign regulatory requirements, we and any of our third-party manufacturers will be obligated to expend time, money and effort on production, record-keeping and quality control to assure that our potential products meet applicable specifications and other requirements. The FDA and other regulatory authorities may take action against a contract manufacturer who violates cGMPs. We recently received a CRL in response to our NDA for Lymphoseek based on deficiencies identified during site inspections of some of our third party contract manufacturing facilities as a part of the NDA review process. We are working to clarify and address the identified deficiencies. Failure to correct the deficiencies may result in our NDA not being approved. Should the Lymphoseek NDA be approved, failure to continually comply with FDA, EMA or other applicable regulations may cause us to curtail or stop the manufacture of such products until we regain regulatory compliance.

***We may lose out to larger or better-established competitors.***

The biotechnology industry is intensely competitive. Some of our competitors have significantly greater financial, technical, manufacturing, marketing and distribution resources as well as greater experience in the pharmaceutical industry than we have. The particular medical conditions our product lines address can also be addressed by other medical procedures or drugs. Many of these alternatives are widely accepted by physicians and have a long history of use. Physicians may use our competitors' products and/or our products may not be competitive with other technologies. For example, Eli Lilly recently announced that it had received approval to market florbetapir (AV-45), a first-generation beta-amyloid imaging agent. We are also aware of two additional first-generation beta-amyloid imaging agents in late stages of development by large pharmaceutical companies. If our competitors are successful in establishing and maintaining market share for their products, our sales and revenues may not occur at the rate we anticipate. In addition, our current and potential competitors may establish cooperative relationships with larger companies to gain access to greater research and development or marketing resources. Competition may result in price reductions, reduced gross margins and loss of market share.

***If any of our license agreements for intellectual property underlying Lymphoseek, NAV4694, CFT or RIGScan, or any other products or potential products are terminated, we may lose the right to develop or market that product.***

We have licensed intellectual property, including patents and patent applications relating to intellectual property for Lymphoseek, NAV4694, CFT and RIGScan. We may also enter into other license agreements or acquire other product candidates. The potential success of our product development programs depend on our ability to maintain rights under these licenses, including our ability to achieve development or commercialization milestones contained in the licenses. Under certain circumstances, the licensors have the power to terminate its agreement with us if we fail to

meet our obligations under these licenses. We may not be able to meet our obligations under these licenses. If we default under any license agreement, we may lose our right to market and sell any products based on the licensed technology.

***We may not have sufficient legal protection against infringement or loss of our intellectual property, and we may lose rights to our licensed intellectual property if diligence requirements are not met.***

Our success depends, in part, on our ability to secure and maintain patent protection for our products and product candidates, to preserve our trade secrets, and to operate without infringing on the proprietary rights of third parties. While we seek to protect our proprietary positions by filing United States and foreign patent applications for our important inventions and improvements, domestic and foreign patent offices may not issue these patents. Third parties may challenge, invalidate, or circumvent our patents or patent applications in the future. Competitors, many of which have significantly more resources than we have and have made substantial investments in competing technologies, may apply for and obtain patents that will prevent, limit, or interfere with our ability to make, use, or sell our products either in the United States or abroad.

Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are or may be developing products. As the biotechnology and pharmaceutical industry expands and more patents are issued, the risk increases that we will be subject to claims that our products or product candidates, or their use, infringe the rights of others. In the United States, patent applications are secret until patents are issued, and in foreign countries, patent applications are secret for a time after filing. Publications of discoveries tend to significantly lag the actual discoveries and the filing of related patent applications. Third parties may have already filed applications for patents for products or processes that will make our products obsolete, limit our patents, invalidate our patent applications or create a risk of infringement claims.

We or our suppliers may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our products, product candidates and/or technologies infringe their intellectual property rights or that the process of manufacturing our products or any of their respective component materials, or the component materials themselves, or the use of our products, product candidates or technologies, infringe their intellectual property rights. If one of these patents was found to cover our products, product candidates, technologies or their uses, or any of the underlying manufacturing processes or components, we could be required to pay damages and could be unable to commercialize our products or use our technologies or methods unless we are able to obtain a license to the patent or intellectual property right. A license may not be available to us in a timely manner or on acceptable terms, if at all. In addition, during litigation, a patent holder could obtain a preliminary injunction or other equitable remedy that could prohibit us from making, using or selling our products, technologies or methods.

In addition, it may be necessary for us to enforce patents under which we have rights, or to determine the scope, validity and unenforceability of other parties' proprietary rights, which may affect our rights. There can be no assurance that our patents would be held valid by a court or administrative body or that an alleged infringer would be found to be infringing. The uncertainty resulting from the mere institution and continuation of any patent related litigation or interference proceeding could have a material and adverse effect on us.

We typically require our employees, consultants, advisers and suppliers to execute confidentiality and assignment of invention agreements in connection with their employment, consulting, advisory, or supply relationships with us. They may breach these agreements and we may not obtain an adequate remedy for breach. Further, third parties may gain access to our trade secrets or independently develop or acquire the same or equivalent information.

Agencies of the United States government conducted some of the research activities that led to the development of antibody technology that some of our proposed antibody-based surgical cancer detection products use. When the United States government participates in research activities, it retains rights that include the right to use the technology for governmental purposes under a royalty-free license, as well as rights to use and disclose technical data that could preclude us from asserting trade secret rights in that data and software.

***We and our collaborators, including AstraZeneca and Alseres, may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on all of our product candidates and products, when and if we have any, in every jurisdiction would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we or our licensors have not obtained patent protection to develop their own products. These products may compete with our products, when and if we have any, and may not be covered by any of our or our licensors' patent claims or other intellectual property rights.

The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or pharmaceuticals, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.



***The intellectual property protection for our product candidates depends on third parties.***

With respect to Lymphoseek, NAV4694, CFT and RIGScan, we have exclusively licensed certain issued patents and pending patent applications covering the respective technologies underlying these product candidates and their commercialization and use and we have licensed certain issued patents and pending patent applications directed to product compositions and chemical modifications used in product candidates for commercialization, and the use and the manufacturing thereof.

The patents and pending patent applications underlying our licenses do not cover all potential product candidates, modifications and uses. In the case of patents and patent applications licensed from AstraZeneca, we have limited control over the filing, prosecution or enforcement of these patents or patent applications. In the case of patents and patent applications licensed from the University of California, San Diego (UCSD), we did not have any control over the filing of the patents and patent applications before the effective date of the Lymphoseek license, and have had limited control over the filing and prosecution of these patents and patent applications after the effective date of the Lymphoseek license. Under certain circumstances, we also have the right to enforce patents and patent applications licensed from AstraZeneca and Alseres. We cannot be certain that such prosecution efforts have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents. We also cannot be assured that our licensors or their respective licensing partners will agree to enforce any such patent rights at our request or devote sufficient efforts to attain a desirable result. Any failure by our licensors or any of their respective licensing partners to properly protect the intellectual property rights relating to our product candidates could have a material adverse effect on our financial condition and results of operation.

***We may become involved in disputes with AstraZeneca, UCSD, Alseres, the National Institutes of Health (NIH) or potential future collaborators over intellectual property ownership, and publications by our research collaborators and scientific advisors could impair our ability to obtain patent protection or protect our proprietary information, which, in either case, could have a significant effect on our business.***

Inventions discovered under research, material transfer or other such collaborative agreements may become jointly owned by us and the other party to such agreements in some cases and the exclusive property of either party in other cases. Under some circumstances, it may be difficult to determine who owns a particular invention, or whether it is jointly owned, and disputes could arise regarding ownership of those inventions. These disputes could be costly and time consuming and an unfavorable outcome could have a significant adverse effect on our business if we were not able to protect or license rights to these inventions. In addition, our research collaborators and scientific advisors generally have contractual rights to publish our data and other proprietary information, subject to our prior review. Publications by our research collaborators and scientific advisors containing such information, either with our permission or in contravention of the terms of their agreements with us, may impair our ability to obtain patent protection or protect our proprietary information, which could significantly harm our business.

*We may have difficulty raising additional capital, which could deprive us of necessary resources to pursue our business plans.*

We expect to devote significant capital resources to fund research and development, to maintain existing and secure new manufacturing capacity, and to acquire new product candidates. In order to support the initiatives envisioned in our business plan, we may need to raise additional funds through the sale of assets, public or private debt or equity financing, collaborative relationships or other arrangements. Our ability to raise additional financing depends on many factors beyond our control, including the state of capital markets, the market price of our common stock and the development or prospects for development of competitive technology by others. Sufficient additional financing may not be available to us or may be available only on terms that would result in further dilution to the current owners of our common stock.

Our future expenditures on our programs are subject to many uncertainties, including whether our product candidates will be developed or commercialized with a partner or independently. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- the costs of seeking regulatory approval for our product candidates, including any nonclinical testing or bioequivalence or clinical studies, process development, scale-up and other manufacturing and stability activities, or other work required to achieve such approval, as well as the timing of such activities and approval;
- the extent to which we invest in or acquire new technologies, product candidates, products or businesses and the development requirements with respect to any acquired programs;
- the scope, prioritization and number of development and/or commercialization programs we pursue and the rate of progress and costs with respect to such programs;
- the costs related to developing, acquiring and/or contracting for sales, marketing and distribution capabilities and regulatory compliance capabilities, if we commercialize any of our product candidates for which we obtain regulatory approval without a partner;
- the timing and terms of any collaborative, licensing and other strategic arrangements that we may establish;
- the extent to which we will need to expand our workforce to pursue our business plan, and the costs involved in recruiting, training and incentivizing new employees;
- the effect of competing technological and market developments; and
- the cost involved in establishing, enforcing or defending patent claims and other intellectual property rights.

We believe that we have access to sufficient financial resources with which to fund our operations and those of our subsidiaries for the near future. However, certain events or actions may shorten the period through which our current operating funds will sustain us, including, without limitation, if we decide to grow our organization in pursuit of development or commercialization activities for our current or newly acquired or developed product candidates, if we incur unexpected expenses, or if FDA approval of Lymphoseek is further delayed. We may also acquire new technologies, product candidates and/or products and the cost to acquire, develop and/or commercialize such new technologies, product candidates and/or products may shorten the period through which our current operating funds will sustain us. If our current funds become inadequate, we may not be able to obtain sufficient additional funding for such activities, on satisfactory terms, if at all. If we are unsuccessful in raising additional capital, or the terms of raising such capital are unacceptable, we may have to modify our business plan and/or significantly curtail our planned development activities, acquisition of new product candidates and other operations.

***Our ability to raise capital may be limited by applicable laws and regulations.***

Our ability to raise additional capital through the sale and issuance of our equity securities may be limited by, among other things, current Securities and Exchange Commission (Commission) and NYSE MKT rules and regulations. Our capital raising plans include primary offerings of equity securities using a “shelf” registration on Form S-3, which typically enables an issuer to raise additional capital on a more timely and cost effective basis than through other means, such as registration of a securities offering under a Form S-1 registration statement. Under current Commission rules and regulations, to be eligible to use a Form S-3 registration statement for primary offerings without restriction as to the amount of securities to be sold and issued, an issuer must, among other requirements, have outstanding common equity with a market value of at least \$75 million held by non-affiliates. Although we currently have outstanding common equity with a market value of significantly more than \$75 million held by non-affiliates, if

we file a “shelf” Form S-3 registration statement at a time when the aggregate market value of our common stock held by non-affiliates, or public float, is less than \$75 million (calculated as set forth in Form S-3 and Commission rules and regulations), the amount we could raise through primary offerings of our securities in any 12-month period using the Form S-3 registration statement may be limited to an aggregate of one-third of our public float. Moreover, the market value of all securities sold by us under a Form S-3 registration statement during the prior 12 months may be subtracted from that amount to determine the amount we can then raise under the Form S-3 registration statement. The Commission’s rules and regulations require that we periodically re-evaluate the value of our public float. If, at a re-evaluation date, our public float is less than \$75 million, the amount we could raise through primary offerings of our securities in any 12-month period using a Form S-3 registration statement would be subject to the one-third of public float limitation described above.

In addition, under current Commission rules and regulations, if our public float is less than \$75 million or if we seek to register a resale offering (i.e., an offering of our securities by persons other than us), we must, among other requirements, maintain our listing with the NYSE MKT or have our common stock listed and registered on another national securities exchange in order to be eligible to use a Form S-3 registration statement for any primary or resale offering. Alternative means of raising capital through sales of our securities, including through the use of a Form S-1 registration statement, may be more costly and time-consuming.

Currently, our common stock is listed on the NYSE MKT. The NYSE MKT will review the appropriateness of continued listing of any issuer that falls below the exchange's continued listing standards. For additional information regarding this risk, see the risk factor below titled "Our failure to maintain continued compliance with the listing requirements of the NYSE MKT could result in the delisting of our common stock." If our common stock were delisted from the NYSE MKT, our ability to raise capital on terms and conditions we deem acceptable, if at all, may be materially impaired.

Our ability to timely raise sufficient additional capital also may be limited by the NYSE MKT's requirements relating to stockholder approval for transactions involving the issuance of our common stock or securities convertible into our common stock. For instance, the NYSE MKT requires that we obtain stockholder approval of any transaction involving the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value, which (together with sales by our officers, directors and principal stockholders) equals 20% or more of our presently outstanding common stock, unless the transaction is considered a "public offering" by the NYSE MKT staff. Based on our outstanding common stock as of September 24, 2012 and the average closing price of \$3.51 over the thirty trading days preceding September 24, 2012, we could not raise more than approximately \$75 million without stockholder approval, unless the transaction is deemed a public offering or does not involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value. However, certain prior sales by us may be aggregated with any offering we may propose in the near-term, further limiting the amount we could raise in any future offering that is not considered a public offering by the NYSE MKT staff and would involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value. The NYSE MKT will also require stockholder approval if the issuance or potential issuance of additional shares will be considered by the exchange staff to result in a change of control of Navidea.

Obtaining stockholder approval is a costly and time-consuming process. If we are required to obtain stockholder approval, we would expect to spend substantial additional money and resources. In addition, seeking stockholder approval would delay our receipt of otherwise available capital, which may materially and adversely affect our ability to execute our current business strategy, and there is no guarantee our stockholders ultimately would approve a proposed transaction. A public offering under the NYSE MKT rules typically involves broadly announcing the proposed transaction, which often has the effect of depressing the issuer's stock price. Accordingly, the price at which we could sell our securities in a public offering may be less and the dilution existing stockholders experience may in turn be greater than if we were able to raise capital through other means.

*There may be future sales or other dilution of our equity, which may adversely affect the market price of shares of our common stock.*

Our existing and future preferred stock, warrants or other securities convertible into or exchangeable for our common stock may contain adjustment provisions that could increase the number of shares issuable upon exercise, conversion or exchange, as the case may be, and decrease the exercise, conversion or exchange price. The market price of our shares of common stock or preferred stock could decline as a result of sales of a large number of shares of our common stock or preferred stock or similar securities in the market, the triggering of any such adjustment provisions or the perception that such sales could occur in the future.

***Our secured indebtedness imposes significant restrictions on us, and a default could materially adversely affect our operations and financial condition.***

All of our material assets, except our intellectual property, have been pledged as collateral for our borrowings under the Loan and Security Agreement (Loan Agreement) with Hercules Technology II. LP (Hercules). In addition to the security interest in our assets, the Loan Agreement carries substantial covenants that impose significant requirements on us, including, among others, requirements that:

- we pay all principal, interest and other charges on the borrowed funds when due;
- we keep reserved out of our authorized shares of common stock sufficient shares to satisfy our obligation to issue shares on conversion of the debt and the exercise of the warrants issued in connection with the Loan Agreement; and
- we indemnify Hercules against certain liabilities.

Additionally, with certain exceptions, the Loan Agreement prohibits us from:

- amending our organizational or governing agreements and documents, entering into any merger or consolidation, dissolving the Company or liquidating its assets, or acquiring all or any substantial part of the business or assets of any other person;
- incurring any indebtedness, capital leases, or contingent obligations outside the ordinary course of business;
- granting or permitting liens against or security interests in our assets;
- acquiring or making investments in any other person other than permitted investments;
- making any material dispositions of our assets outside the ordinary course of business; or
- declaring or paying any dividends or making any other distributions.

Our ability to comply with these provisions may be affected by changes in our business condition or results of our operations, or other events beyond our control. The breach of any of these covenants would result in a default under the Loan Agreement, permitting Hercules to accelerate the maturity of the debt and to sell the assets securing it. Such actions by Hercules could materially adversely affect our operations, results of operations and financial condition, including causing us to substantially curtail our product development activities.

Due to the extension of the PDUFA date for Lymphoseek to September 10, 2012, we did not receive FDA approval of Lymphoseek by the June 30, 2012 deadline established in the Loan Agreement with Hercules, and therefore expect that additional loan proceeds of up to \$3 million thereunder may not be available to us under the current terms.

***Shares of common stock are equity securities and are subordinate to our existing and future indebtedness and preferred stock.***

Shares of our common stock are common equity interests. This means that our common stock ranks junior to our outstanding shares of Series B and Series C Preferred Stock and any preferred stock that we may issue in the future, to our indebtedness and to all creditor claims and other non-equity claims against us and our assets available to satisfy claims on us, including claims in a bankruptcy or similar proceeding. Our existing and future indebtedness and our preferred stock may restrict payment of dividends on our common stock.

Additionally, unlike indebtedness, where principal and interest customarily are payable on specified due dates, in the case of our common stock, (i) dividends are payable only when and if declared by our Board of Directors or a duly authorized committee of our Board of Directors, and (ii) as a corporation, we are restricted to making dividend payments and redemption payments out of legally available assets. We have never paid a dividend on our common stock and have no current intention to pay dividends in the future. Furthermore, our common stock places no restrictions on our business or operations or on our ability to incur indebtedness or engage in any transactions, subject only to the voting rights available to shareholders generally.



***The global financial crisis may have an impact on our business and financial condition in ways that we currently cannot predict, and may further limit our ability to raise additional funds.***

The ongoing credit crisis and related turmoil in the global financial system has had and may continue to have an impact on our business and our financial condition. We may face significant challenges if conditions in the financial markets do not improve or continue to worsen. In particular, our ability to access the capital markets and raise funds required for our operations may be severely restricted at a time when we would like, or need, to do so which could have an adverse effect on our ability to meet our current and future funding requirements and on our flexibility to react to changing economic and business conditions.

***Our failure to maintain continued compliance with the listing requirements of the NYSE MKT could result in the delisting of our common stock.***

Our common stock is listed on the NYSE MKT. The rules of NYSE MKT provide that shares be delisted from trading in the event the financial condition and/or operating results of the Company appear to be unsatisfactory, the extent of public distribution or the aggregate market value of the common stock has become so reduced as to make further dealings on the NYSE MKT inadvisable, the Company has sold or otherwise disposed of its principal operating assets, or has ceased to be an operating company, or the Company has failed to comply with its listing agreements with NYSE MKT. For example, the NYSE MKT normally will consider suspending trading in, or removing from the list, securities of an issuer that has stockholders' equity of less than \$6.0 million if such issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years. There can be no assurance that the Company will continue to meet these and other requirements necessary to maintain the listing of our common stock on the NYSE MKT. For example, we may determine to grow our organization or product pipeline or pursue development or other activities at levels or on timelines that reduces our stockholders' equity below the level required to maintain compliance with NYSE MKT continued listing standards.

The delisting of our common stock from the NYSE MKT likely would reduce the trading volume and liquidity in our common stock and may lead to decreases in the trading price of our common stock. The delisting of our common stock may also materially impair our stockholders' ability to buy and sell shares of our common stock. In addition, the delisting of our common stock could significantly impair our ability to raise capital, which is critical to the execution of our current business strategy.

***The price of our common stock has been highly volatile due to several factors that will continue to affect the price of our stock.***

Our common stock traded as low as \$2.05 per share and as high as \$4.77 per share during the 12-month period ended September 24, 2012. The market price of our common stock has been and is expected to continue to be highly volatile. Factors, including announcements of technological innovations by us or other companies, regulatory matters, new or existing products or procedures, concerns about our financial position, operating results, litigation, government regulation, developments or disputes relating to agreements, patents or proprietary rights, may have a significant impact on the market price of our stock. In addition, potential dilutive effects of future sales of shares of common stock by the Company and by stockholders, and subsequent sale of common stock by the holders of warrants and options could have an adverse effect on the market price of our shares.

Some additional factors which could lead to the volatility of our common stock include:

- price and volume fluctuations in the stock market at large or of companies in our industry which do not relate to our operating performance;
- changes in securities analysts' estimates of our financial performance or deviations in our business and the trading price of our common stock from the estimates of securities analysts;
- FDA or international regulatory actions and regulatory developments in the U.S. and foreign countries;
- financing arrangements we may enter that require the issuance of a significant number of shares in relation to the number of shares currently outstanding;
- public concern as to the safety of products that we or others develop;
- activities of short sellers in our stock; and
- fluctuations in market demand for and supply of our products.

The realization of any of the foregoing could have a dramatic and adverse impact on the market price of our common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced substantial decline in market price. Moreover, regulatory entities often undertake investigations of investor transactions in securities that experience volatility following an announcement of a significant event or condition. Any such litigation brought against us or any such investigation involving our investors could result in substantial costs and a diversion of management's attention and resources, which could hurt our business, operating results and financial condition.

***An investor's ability to trade our common stock may be limited by trading volume.***

Historically, the trading volume for our common stock has been relatively limited. The average daily trading volume for our common stock on the OTC Bulletin Board for the 12-month period ended January 31, 2011 was approximately 194,000 shares. Following the listing of our common stock on the NYSE MKT on February 10, 2011, trading in our common stock has been more active. During the 12-month period beginning on September 25, 2011 and ending on September 24, 2012, the average daily trading volume for our common stock on the NYSE MKT was approximately 700,000 shares. We cannot, however, assure you that this trading volume will be consistently maintained in the future.

***The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on the NYSE MKT.***

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on the NYSE MKT. These conditions may result in (i) volatility in the level of, and fluctuations in, the market prices of stocks generally and, in turn, our shares of common stock, and (ii) sales of substantial amounts of our common stock in the market, in each case that could be unrelated or disproportionate to changes in our operating performance.

***Because we do not expect to pay dividends on our comm***