April 15, 2016

Navidea and Macrophage Therapeutics to Provide Business Update

DUBLIN, Ohio--(BUSINESS WIRE)-- Navidea Biopharmaceuticals, Inc. (NYSE MKT:NAVB) announces a conference call on Monday, April 18, 2016 at 4:30 p.m. ET to update the market on recent events. The recent changes to the board provide Navidea with an opportunity to refocus its efforts and to develop a strategic plan that takes maximum advantage of its Manocept™ macrophage targeting technology for immunodiagnostic and immunotherapeutic applications.

Lymphoseek® (technetium Tc 99m tilmanocept) injection represents the first of many potential products that can be developed with this technology. In addition, Lymphoseek, which is currently approved in the U.S. and Europe to guide sentinel lymph node biopsy in breast cancer, melanoma, and oral cavity cancers and in the U.S. for use in solid tumors where lymphatic mapping is a component of surgical management, is being explored for additional immunodiagnostic uses including rheumatoid arthritis as the initial target and ultimately for other autoimmune and inflammatory conditions including cardiovascular disease, infectious diseases and a number of other potential indications. On the immunotherapeutic side there has been significant progress and with the changes at the board level, we are committed to providing the necessary support to enable this effort to achieve its potential.

To achieve our ambitious goals our immediate objective is to right size our expenses to our current revenues so that we attain positive operational cash flow, based on our current revenue stream. Given our projected revenue growth and profitability and a renegotiated distribution agreement following its expiration in less than 2 years, we believe that our ability to refinance our existing senior debt with improved terms is very likely.

In addition we will present an update on the very significant progress that has occurred at Macrophage Therapeutics, the immunotherapeutic-focused subsidiary of Navidea. Over the past six months we have successfully developed new chemical synthetic processes for the synthesis of the first two therapeutic products. These compounds have appropriate purity and have demonstrated high affinity binding to the CD206 (mannose receptor) target. Two different contract manufacturing organizations have successfully produced the materials and there are plans for GMP scale-up as the programs move forward. We have also completed a number of animal studies with our intended anti-inflammatory compound and are in the process of completing dosing in a number of additional animal studies with either our anti-inflammatory compound or our compound designed to destroy via apoptosis disease causing macrophages. We are also in the process of initiating several animal *in vivo* tumor model studies to investigate the ability to deplete Tumor Associated Macrophages (TAMs) and initiate cancer cell death. As we stated when we created Macrophage Therapeutics, we will be pursuing a partnership model, as we look to explore the many potential uses for this technology in parallel. We have successfully introduced the technology to multiple large

pharmaceutical and biotechnology companies and it is our intent to pursue development deals based on their review of the data we are currently generating. We have recently initiated the first collaboration with a large pharmaceutical company that is testing one of our compounds in various anti-inflammatory studies. We will review the current state of affairs at Macrophage Therapeutics on Monday's call.

Finally we are eager to open the call to Navidea investors and potential investors. We will devote a substantial portion of the call to Q&A as we want to make certain we address the subjects that are important to investors. We plan to discuss the progress of this promising technology during regularly scheduled Macrophage Therapeutics update calls as we appreciate the value of improving communication with investors and prospective investors.

Conference Call Details

Investors and the public are invited to access the live audio webcast through the link below. Participants who would like to ask questions during the question and answer session must participate by telephone also. Participants are encouraged to log-in and/or dial-in fifteen minutes before the conference call begins. The webcast replay is expected to be available on our investor website, http://ir.navidea.com, approximately two to four hours after the live event.

Event:	Navidea and Macrophage Therapeutics Business Update Call
Date/Time:	Monday, April 18, 2016 at 4:30 p.m. ET
Webcast Link:	http://edge.media-server.com/m/p/e2rzwvkp
Dial-in Number – US:	(855) 897-5884
Dial in Number – Int'l:	(720) 634-2940
Participant Passcode:	93499436
Replay	A webcast replay will be available on the Investor Relations section of our website at http://ir.navidea.com for 30 days.

About Lymphoseek

Lymphoseek® (technetium Tc 99m tilmanocept) injection is the first and only FDA-approved receptor-targeted lymphatic mapping agent. It is a novel, receptor-targeted, small-molecule radiopharmaceutical used in the evaluation of lymphatic basins that may have cancer involvement in patients. Lymphoseek is designed for the precise identification of lymph nodes that drain from a primary tumor, which have the highest probability of harboring cancer. Lymphoseek is approved by the U.S. Food and Drug Administration (FDA) for use in solid tumor cancers where lymphatic mapping is a component of surgical management and for guiding sentinel lymph node biopsy in patients with clinically node negative breast cancer, melanoma or squamous cell carcinoma of the oral cavity. Lymphoseek has also received European approval in imaging and intraoperative detection of sentinel lymph nodes in patients with melanoma, breast cancer or localized squamous cell carcinoma of the oral cavity.

Accurate diagnostic evaluation of cancer is critical, as results guide therapy decisions and determine patient prognosis and risk of recurrence. Overall in the U.S., solid tumor cancers may represent up to 1.2 million cases per year. The sentinel node label in the U.S. and

Europe may address approximately 600,000 new cases of breast cancer, 160,000 new cases of melanoma and 100,000 new cases of head and neck/oral cancer diagnosed annually.

Lymphoseek Indication and Important Safety Information

Lymphoseek is a radioactive diagnostic agent indicated with or without scintigraphic imaging for:

• Lymphatic mapping using a handheld gamma counter to locate lymph nodes draining a primary tumor site in patients with solid tumors for which this procedure is a component of intraoperative management.

• Guiding sentinel lymph node biopsy using a handheld gamma counter in patients with clinically node negative squamous cell carcinoma of the oral cavity, breast cancer or melanoma.

Important Safety Information

In clinical trials with Lymphoseek, no serious hypersensitivity reactions were reported, however Lymphoseek may pose a risk of such reactions due to its chemical similarity to dextran. Serious hypersensitivity reactions have been associated with dextran and modified forms of dextran (such as iron dextran drugs).

Prior to the administration of Lymphoseek, patients should be asked about previous hypersensitivity reactions to drugs, in particular dextran and modified forms of dextran. Resuscitation equipment and trained personnel should be available at the time of Lymphoseek administration, and patients observed for signs or symptoms of hypersensitivity following injection.

Any radiation-emitting product may increase the risk for cancer. Adhere to dose recommendations and ensure safe handling to minimize the risk for excessive radiation exposure to patients or health care workers. In clinical trials, no patients experienced serious adverse reactions and the most common adverse reactions were injection site irritation and/or pain (<1%).

FULL LYMPHOSEEK PRESCRIBING INFORMATION CAN BE FOUND AT:

WWW.LYMPHOSEEK.COM

About Manocept CD206 Immunotargeting Platform for Therapeutics Development

Manocept™ CD206 Immunotargeting Platform is a proprietary mannose-containing, receptor-directed technology platform designed to engineer novel, synthetic receptor targeted imaging agents and therapeutics for cancer and other diseases. Manocept's unique structural and molecular properties enable the design of novel immuno-constructs that selectively target and bind to CD206 (mannose receptor) and other C-type Lectins found on activated, disease-associated macrophages and tumor associated macrophages (TAMs). The Manocept CD206 Immunotargeting Platform provides a novel and valuable approach to the design of drug molecules targeting CD206 disease-associated macrophages for therapeutic purposes.

About Navidea

Navidea Biopharmaceuticals, Inc. (NYSE MKT: NAVB) is a biopharmaceutical company focused on the development and commercialization of precision immunodiagnostic agents and immunotherapeutics. Navidea is developing multiple precision-targeted products and platforms including Manocept™ and NAV4694 to help identify the sites and pathways of undetected disease and enable better diagnostic accuracy, clinical decision-making, targeted treatment and, ultimately, patient care. Lymphoseek® (technetium Tc 99m tilmanocept) injection, Navidea's first commercial product from the Manocept platform, was approved by the FDA in March 2013 and in Europe in November 2014. The development activities of the Manocept immunotherapeutic platform will be conducted by Navidea in conjunction with its subsidiary, Macrophage Therapeutics. Navidea's strategy is to deliver superior growth and shareholder return by bringing to market novel products and advancing the Company's pipeline through global partnering and commercialization efforts. For more information, please visit www.navidea.com.

About Macrophage Therapeutics

Macrophage Therapeutics, Inc., a subsidiary of Navidea Biopharmaceuticals, Inc. (NAVB), is developing therapeutics using the patented Manocept immunotherapy platform licensed from Navidea to target over-active macrophages implicated in cancer, cardiovascular, central nervous system, autoimmune, antiviral, and skin diseases. Manocept specifically targets CD206, or the mannose receptor prevalent on over-active macrophages. The technology enables highly specific targeted delivery of active (either existing or yet to be developed) agents that can modulate the activity of over-active macrophages that have been implicated in many diseases. Targeted delivery should significantly enhance a given compound's efficacy and safety.

The Private Securities Litigation Reform Act of 1995 (the Act) provides a safe harbor for forward-looking statements made by or on behalf of the Company. Statements in this news release, which relate to other than strictly historical facts, such as statements about the Company's plans and strategies, expectations for future financial performance, new and existing products and technologies, anticipated clinical and regulatory pathways, and markets for the Company's products are forward-looking statements within the meaning of the Act. The words "believe," "expect," "anticipate," "estimate," "project," and similar expressions identify forward-looking statements that speak only as of the date hereof. Investors are cautioned that such statements involve risks and uncertainties that could cause actual results to differ materially from historical or anticipated results due to many factors including, but not limited to, the Company's continuing operating losses, uncertainty of market acceptance of its products, reliance on third party manufacturers, accumulated deficit, future capital needs, uncertainty of capital funding, dependence on limited product line and distribution channels, competition, limited marketing and manufacturing experience, risks of development of new products, regulatory risks and other risks detailed in the Company's most recent Annual Report on Form 10-K and other Securities and Exchange Commission filings. The Company undertakes no obligation to publicly update or revise any forward-looking statements.

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