

Navidea Biopharmaceuticals Announces Acceptance of Abstract for Presentation at the Society of Nuclear Medicine and Molecular Imaging Annual Meeting

DUBLIN, Ohio--(BUSINESS WIRE)-- Navidea Biopharmaceuticals, Inc. (NYSE American: NAVB) ("Navidea" or the "Company"), a company focused on the development of precision immunodiagnostic agents and immunotherapeutics, today announced acceptance of its abstract titled, "TAM Targeted Imaging Agents Binding CD206 and Selective Blocking of Off Target Liver Localization" for presentation at this year's Society of Nuclear Medicine and Molecular Imaging ("SNMMI") Annual Meeting. This work was performed as part of an ongoing research collaboration with the University of Alabama at Birmingham ("UAB"), in the laboratory of Dr. Suzanne Lapi, Professor and Vice Chair of Research in the UAB Department of Radiology. The poster will be presented by Dr. Jennifer Bartels of UAB.

This year's annual SNMMI meeting will be held June 11-14 in Vancouver, British Columbia, Canada. The presentation will take place Saturday, June 11, from 6 pm – 8 pm PDT (abstract ID 197; program ID 2862). The abstract will be accessible on the SNMMI's Annual Meeting website prior to the meeting (https://am.snmmi.org/iMIS/SNMMI-AM).

The objectives of this preclinical study were to evaluate tumor localization of two new CD206 targeted mannosylated dextran (Navidea's Manocept platform) imaging agents as well as an approach to reduce uptake of these imaging agents by the liver. The new imaging agents were labeled with gallium-68 ("⁶⁸Ga") to enable positron emission tomography ("PET") imaging. The ultimate goals are to develop next generation Manocept imaging agents that offer improved on-target localization and reduced off-target localization. CD206 is a receptor expressed primarily on activated macrophages, including tumor associated macrophages ("TAMs"), as well as the Kupffer cells of the liver. TAM-targeted Manocept imaging enables imaging of tumors. The information gained from these experiments also suggests strategies to improve targeted delivery of therapeutic payloads to TAMs and other clinically significant targets, while simultaneously reducing off-target liver toxicity.

The experiments described in the poster evaluated the biodistribution in mice with and without tumors of the new ⁶⁸Ga-labeled Manocept imaging agents that differed in their molecular weights. Also evaluated were the effects on their biodistributions of prior administration of unlabeled constructs or a construct designed to specifically block off-target liver localization. Results showed that the amount of the two imaging agents that localized to tumors differed significantly. Also, pretreatment with the construct designed to selectively block liver localization did significantly reduced liver localization of the ⁶⁸Ga-labeled imaging agents without reducing their localizations to tumors.

Dr. Suzanne Lapi said, "My research group and I are pleased to present this collaborative work with Navidea at SNMMI and to continue to further advance this project with possible far reaching medical imaging and commercial potentials."

Dr. Michael Rosol, Chief Medical Officer for Navidea, said, "We are delighted by the opportunity to present these results at this internationally recognized meeting." Dr. Rosol continued, "This is another example in a line of research collaborations we have had with the highest level of researchers at top tier institutions that is resulting in work advancing our platform technology. These new technologies suggest exciting new applications in medical imaging and possibly also new therapeutic strategies."

About Navidea

Navidea Biopharmaceuticals, Inc. (NYSE American: NAVB) is a biopharmaceutical company focused on the development of precision immunodiagnostic agents and immunotherapeutics. Navidea is developing multiple precision-targeted products based on its Manocept™ platform to enhance patient care by identifying the sites and pathways of disease and enable better diagnostic accuracy, clinical decision-making, and targeted treatment. Navidea's Manocept platform is predicated on the ability to specifically target the CD206 mannose receptor expressed on activated macrophages. The Manocept platform serves as the molecular backbone of Tc99m tilmanocept, the first product developed and commercialized by Navidea based on the platform. 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 UAB

Known for its innovative and interdisciplinary approach to education at both the graduate and undergraduate levels, the University of Alabama at Birmingham, a part of the University of Alabama System, is an internationally renowned research university and academic medical center with over \$600 million in research awards annually, as well as Alabama's largest single employer, with some 26,000 employees, and has an annual economic impact exceeding \$7.15 billion on the state. The pillars of UAB's mission include education, research, innovation and economic development, community engagement, and patient care. Learn more at www.uab.edu.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. Forward-looking statements include our expectations regarding pending litigation and other matters. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things: our history of operating losses and ability to obtain additional financing; our ability to continue as a going concern; the final outcome of any pending litigation; our ability to successfully complete research and further development of our drug candidates; the timing, cost and uncertainty of obtaining regulatory approvals of our drug candidates; our ability to

successfully commercialize our drug candidates; dependence on royalties and grant revenue; our ability to implement our growth strategy; anticipated trends in our business; our limited product line and distribution channels; advances in technologies and development of new competitive products; our ability to comply with the NYSE American continued listing standards; our ability to maintain effective internal control over financial reporting; the impact of the current coronavirus pandemic; and other risk factors detailed in our most recent Annual Report on Form 10-K and other SEC filings. You are urged to carefully review and consider the disclosures found in our SEC filings, which are available at http://www.sec.gov or at http://ir.navidea.com.

Investors are urged to consider statements that include the words "will," "may," "could," "should," "plan," "continue," "designed," "goal," "forecast," "future," "believe," "intend," "expect," "anticipate," "estimate," "project," and similar expressions, as well as the negatives of those words or other comparable words, to be uncertain forward-looking statements.

You are cautioned not to place undue reliance on any forward-looking statements, any of which could turn out to be incorrect. We undertake no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this report. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

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