Morphic Therapeutic Presents Preclinical Data from αvβ8 Integrin Program at American Association for Cancer Research (AACR) Annual Meeting

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First data from oral αvβ8 program demonstrate potent anti-tumor response through TGFβ pathway

Combination with checkpoint inhibitor showed efficacy in checkpoint-resistant models of breast cancer and induced a lasting anti-tumor effect

WALTHAM, Mass., April 12, 2021 (GLOBE NEWSWIRE) -- Morphic Therapeutic (Nasdaq: MORF), a biopharmaceutical company developing a new generation of oral integrin therapies for the treatment of serious chronic diseases, today announced the presentation of the first preclinical data from its αvβ8 integrin program at the 2021 American Association for Cancer Research (AACR) Annual Virtual Meeting. These preclinical data show that an orally administered αvβ8 integrin inhibitor is a potent modulator of anti-tumor immune response in checkpoint-inhibitor resistant tumors and support development of this new therapeutic approach. αvβ8 is known to mediate the activation of tumor growth factor beta (TGFβ1/3). Morphic is developing oral small molecule inhibitors of the αvβ8 integrin which is expressed on cell types central to immune response and is a major contributor to tolerance and suppression of anti-tumor immunity.

“These new data, in multiple well characterized preclinical models, support αvβ8 inhibition as a potential mechanism for the modulating response tumors that are resistant to immune checkpoint therapy. We are using Morphic’s proprietary integrin therapeutic design platform, MInT, to develop candidates intended to enhance outcomes in checkpoint inhibitor regimens by modulating tumor response-associated integrins,” commented Bruce Rogers, Ph.D., chief scientific officer at Morphic Therapeutic. “We believe the opportunity to convert checkpoint-resistant or “cold” tumors into “hot” tumors that are responsive to checkpoint therapy, is a promising and highly compelling opportunity in immuno-oncology.”

The research demonstrates that Morphic’s small molecule inhibitor in combination with anti-PD-1 drives efficacy across mouse models of treatment-resistant breast cancer including the EMT6 and PyMT syngeneic breast cancer models. Furthermore, the anti-tumor activity was seen to be mediated through adaptive immunity and be dependent on CD8 T cells. The examination of immune cell gene signatures on immune cell populations within tumor and lymphoid organs provided evidence for a lasting state of reduced tumor tolerance in these models.

Details of the poster presentation

Title
Inhibition of Integrin αvβ8 enhances immune checkpoint induced anti-tumor immunity by acting across immunologic synapse in syngeneic models of breast cancer
Presenter
Natalia Blanco, PhD
Contributors
Natalia Blanco, Vinod Yadav, Megan Krumpoch, Laura Cappellucci, Dan Cui, James E. Dowling, Elizabeth Gwara, Bryce Harrison, Dooyoung Lee, Fu-Yang Lin, Lia Luus, Meghan Monroy, Terence I. Moy, Eugene Nebelitsky, Qi Qiao, Andrew Sullivan, Jamie Wong, Dawn Troast, Blaise Lippa, Bruce Rogers, Adrian S. Ray
This AACR poster is available on the Morphic website on the investor page.

About Morphic Therapeutic
Morphic Therapeutic is a biopharmaceutical company developing a new generation of oral integrin therapies for the treatment of serious chronic diseases, including autoimmune, cardiovascular, and metabolic diseases, fibrosis and cancer. In collaboration with AbbVie, Janssen, and Schrödinger, Morphic is advancing its pipeline and discovery activities using its proprietary Morphic Integrin Technology (MInT) Platform which leverages the Company’s unique understanding of integrin structure and biology. For more information, visit www.morphictx.com.

Cautionary Note Regarding Forward-Looking Statements
This press release contains “forward-looking” statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to: the MInT Platform’s ability to discover drug candidates, Morphic’s plans to develop and commercialize oral small-molecule integrin therapeutics, the execution of further preclinical studies, any expectations about safety, efficacy, timing and ability to commence or complete clinical studies and to obtain regulatory approvals for Morphic’s αvβ8 inhibitors and other candidates in development. Statements including words such as “believe,” “plan,” “continue,” “expect,” “will,” “develop,” “signal,” “potential,” or “ongoing” and statements in the future tense are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions, which, if they do not fully materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements are subject to risks and uncertainties that may cause Morphic’s actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties in this press release and other risks set forth in our filings with the Securities and Exchange Commission, including Morphic’s or a partner’s ability to develop, obtain regulatory approval for or commercialize any product candidate, Morphic’s ability to protect intellectual property, the potential impact of the COVID-19 pandemic and the sufficiency of our cash, cash equivalents and investments to fund our operations. These forward-looking statements speak only as of the date hereof and Morphic specifically disclaims any obligation to update these forward-looking statements or reasons why actual results might differ, whether as a result of new information, future events or otherwise, except as required by law.

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