Morphic Therapeutic Enters Into Integrin Research and Development Collaboration with Janssen

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- *Deal extends reach of Morphic discovery across all known human integrins*
- *Therapeutic potential of Morphic pipeline expanded by inclusion of both integrin inhibitor and activator research*
- *Collaboration facilitated by Johnson & Johnson Innovation, Boston*

WALTHAM, Mass. – February 21, 2019 – Morphic Therapeutic (Morphic), a biotechnology company developing oral integrin therapies, announced today that it has entered into a research and development collaboration with Janssen Biotech, Inc. (Janssen) to discover and develop novel integrin therapeutics for patients with conditions not adequately addressed by current therapies. Johnson & Johnson Innovation LLC facilitated the transaction. The collaboration focuses on several undisclosed integrin targets and will explore both inhibitors and activators of integrin function.

To date, Morphic has built a leadership position in novel oral small molecule integrin inhibitors by leveraging the breakthrough structural research of its scientific founder, Dr. Tim Springer. Applying this platform to all 24 known human integrins, including αI integrin targets, potentially expands Morphic's drug discovery capabilities, pipeline and the therapeutic applications of its drug candidates across a diverse set of diseases. This reflects integrins' important role in many cellular processes.

"Our team is pleased to have a partner of Janssen's caliber join our network of collaborators working together to drive the development of a new generation of oral integrin medicines using our in-house platform," said Praveen Tipirneni, M.D., president and chief executive officer, Morphic Therapeutic. "The dysregulation of the diverse integrin family is implicated in many conditions, creating an urgency which drives our team's mission to rapidly and systematically interrogate this target class both from an inhibition and activation perspective. This partnership offers exciting opportunities to advance oral integrin development into new areas of research which creates value for all our internal programs and accelerates the refinement and validation of our platform."

Under the terms of the agreement, the companies will collaborate through preclinical development to identify and advance candidates. Upon completing Investigational New Drug enabling studies, Janssen may exclusively option the licensed compounds, and then Janssen will be responsible for global clinical development and commercialization. Janssen will pay Morphic an undisclosed upfront payment and will fund research activities. In addition, Morphic will receive from Janssen multiple preclinical development, clinical and commercial milestone payments totaling over $725 million if such milestones are achieved. Morphic will also receive royalties on worldwide net sales for any products resulting from the collaboration.

About Integrins

Integrins are a ubiquitous family of receptors expressed on the surface of most human cells. Integrins are dimers comprising one α (alpha) subunit and one β (beta) subunit. Integrin signaling controls a wide range of cellular processes, including cell survival, cell cycle progression, immune system activation, cell differentiation, and cell migration. Aberrant integrin signaling contributes to a diverse array of human diseases, including each of Morphic's focus areas of fibrosis, autoimmune diseases, and immuno-oncology.

αI (pronounced 'alpha-eye') domain integrins represent a distinct structural class of the 24-member integrin family. The presence of the αI domain in the α (alpha) subunit of the integrin dimer gives it a different mechanism of ligand binding. αI domain integrins are distinct from the α1 (alpha-one) subunit of the integrin dimer. Activators of integrin function may be useful in the treatment of diseases where cell function is weakened due to loss of integrin-mediated interactions with the microenvironment.

Research in the Springer laboratory has shown that, historically, compounds designed to inhibit integrin function inadvertently worked to activate it, leading to the failure of investigational oral integrin drugs. Morphic's platform is designed to avoid these pitfalls and deliver effective oral therapeutic candidates including both inhibitors and activators of integrin function.

About Morphic Therapeutic

Morphic Therapeutic is a biotechnology company developing a new generation of oral integrin therapies. Drawing on integrin biology breakthroughs from the lab of noted entrepreneur and scientific founder Tim Springer, Morphic has developed an exclusive platform to build on these discoveries to model integrins and discover effective orally delivered integrin therapies. This platform is complemented by a partnership with computational chemistry leader Schrödinger, Inc., that facilitates the rapid and iterative design of clinical candidates. For more information, visit www.morphictx.com.

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