

Morphic Announces Presentation of New Data Supporting Development of MORF-057 at UEG Week Virtual 2020

October 12, 2020

-Data validate physiologically relevant assay used in MORF-057 Phase 1 studies to measure receptor occupancy of $\alpha_4\beta_7$ integrin--MORF-057, inhibitor of $\alpha_4\beta_7$ integrin, in development to treat inflammatory bowel disease-

WALTHAM, Mass., Oct. 12, 2020 (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 a poster presentation with new preclinical data on MORF-057 at the UEG Week Virtual 2020 meeting. These new data support the profile of MORF-057 as a potent, selective, and orally available small molecule inhibitor of the integrin $\alpha_4\beta_7$ and establish assays for key clinically relevant biomarkers in the ongoing Phase 1 trial of MORF-057. MORF-057 is in clinical development as an oral small molecule inhibitor of the treatment of inflammatory bowel disease (IBD) with an initial focus on ulcerative colitis (UC).

"The data presented at UEG Week 2020 expand on the results from previous studies demonstrating the high selectivity of MORF-057 for its integrin target, $\alpha_4\beta_7$, through ex vivo human translational biomarkers," stated Bruce Rogers, PhD, chief scientific officer of Morphic. "Importantly, with these data, Morphic has validated a physiologically relevant assay to measure $\alpha_4\beta_7$ receptor occupancy in human whole blood, an important pharmacodynamic marker being studied in the ongoing phase 1 trial of MORF-057. We are now focused on the translation of these promising preclinical data into clinical results from the Phase 1 study of MORF-057."

Details of the Poster Presentation at UEG

Title: Translational biomarkers for selective, oral, small molecule $\alpha_4\beta_7$ inhibitor MORF-057

Presenter: Maloy Mangada, PhD, Associate Director Translational Sciences, Morphic Therapeutic Inc.

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This UEG poster is available on the Morphic website on the Investor page.

About MORF-057

Morphic is developing MORF-057 as a selective, oral small molecule inhibitor of the $\alpha_4\beta_7$ integrin for patients with inflammatory bowel disease (IBD). $\alpha_4\beta_7$ has been clinically validated as a target for the treatment of IBD by the success of the approved injectable antibody therapeutic vedolizumab. MORF-057 is designed to block the interactions between $\alpha_4\beta_7$ on the surface of lymphocytes and the mucosal endothelial cell ligand MAdCAM-1, substantially reducing lymphocyte migration from the bloodstream into intestinal mucosal tissues and causing inflammation that is associated with IBD.

About Inflammatory Bowel Disease

Inflammatory Bowel Disease (IBD) comprises several autoimmune and immune-mediated conditions characterized by chronic inflammation of the gastrointestinal tract. Ulcerative colitis and Crohn's disease are two most common types of IBD. In ulcerative colitis, inflammation is limited to the lining of the colon, whereas in Crohn's disease inflammation can segmentally affect any part of the gastrointestinal tract through the entire thickness of the bowel wall. Symptoms of these conditions include persistent diarrhea, abdominal pain, rectal bleeding, weight loss, and fatigue. Approved medications may not adequately control symptoms for many patients, and some develop complications that require surgical removal of the colon and rectum. According to a report by the Crohn's and Colitis Foundation, as of November 2014, there were approximately 1,687,000 people living with ulcerative colitis and Crohn's disease in the United States, with 71,000 new cases diagnosed per year. Among FDA approved therapies for use in moderate to severe IBD is vedolizumab, an injectable monoclonal antibody inhibitor of the integrin $\alpha_4\beta_7$.

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 MInT technology 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 the phase 1 clinical trial as designed, any expectations about safety, efficacy, timing and ability to commence or complete clinical studies and to obtain regulatory approvals for MORF-057 and other candidates in development, and the ability of MORF-057 to treat inflammatory bowel disease or related indications. 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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