FOR IMMEDIATE RELEASE

Merrimack Pharmaceuticals and sanofi-aventis Initiate Enrollment in a Phase 2 Combination Study of MM-121 and exemestane in Breast Cancer

The trial, enrolling patients at multiple centers across the United States, is part of a broad Phase 2 program for MM-121 launched by Merrimack and sanofi-aventis this year

CAMBRIDGE, Mass., July 22, 2010 – Merrimack Pharmaceuticals, Inc. and sanofi-aventis announced today that the first patient has received an initial dose in a Phase 2 randomized double blind clinical study combining MM-121 with exemestane (Aromasin®) in breast cancer patients.

MM-121, Merrimackôs lead oncology therapeutic candidate, is an antibody designed to block signaling of ErbB3. ErbB3 is a key mediator of the ErbB pathway, a pathway believed to play a critical role in cancer cell growth. Exemestane is an oral steroidal aromatase inhibitor.

ñEstrogen deprivation strategies with drugs such as tamoxifen and exemestane, have proved to be very effective treatments in hormone sensitive breast cancer but in many instances a patientôs cancer develops resistance to this type of treatment. This study seeks to explore the hypothesis that ErbB3 may play a role in driving this acquired form of resistance and that by combining MM-121 with exemestane, we may be able to mitigate against it,ò said Victor Moyo, M.D., Vice President of Clinical Investigation at Merrimack.

The Phase 2 study will evaluate whether the combination of MM-121 and exemestane is more effective than exemestane alone in postmenopausal women with locally advanced or metastatic estrogen receptor positive (ER+) and/or progesterone receptor positive (PR+), HER2-negative breast cancer. The Pasco-Pinellas Cancer Center, one of multiple study sites participating in this trial, enrolled the first patient. Dr. Michaela Higgins, breast cancer researcher at the Massachusetts General Hospital (MGH) Cancer Center is the principal investigator for the trial.

ñA major goal of our breast cancer program is to improve the outcomes of women with ER+ breast cancer,ò said Dr. Paul Goss, director of the breast program at MGH and a global clinical research leader in the treatment of breast cancer.

MM-121 is a monoclonal antibody designed to block signaling of the ErbB3 receptor. ErbB3 is a member of the ErbB family consisting of four different receptors, EGFR (a.k.a. ErbB1), ErbB2 (Her2), ErbB3 (Her3) and ErbB4 (Her4). These receptors play a critical role in cancer signaling. MM-121 was the first engineered antibody that emerged from Merrimackôs Network Biology platform, as well as the first selective ErbB3 antagonist to enter human clinical development. A Phase 1/2 study evaluating MM-121 in combination with erlotinib (Tarceva®) is ongoing in patients with non-small cell lung cancer, as well as a Phase 1 dose escalation trial testing the safety and pharmacokinetics of MM-121. Preclinical data exhibiting MM-121ôs impact on multiple cancer models were presented at the 2010 annual meeting of the American Association for Cancer Research.

Merrimack and sanofi-aventis entered into an exclusive, global collaboration and licensing agreement for MM-121 in 2009.

About Merrimack

Merrimack Pharmaceuticals, Inc. is a biopharmaceutical company dedicated to the discovery and development of novel medicines for the treatment of cancer and inflammation. The Company is advancing a robust pipeline of engineered therapeutics paired with molecular diagnostics. Merrimack has three oncology candidates in clinical development: MM-121, partnered with sanofi-aventis, in Phase 2 clinical testing, MM-111 in Phase 1/2 clinical testing, MM-398 in Phase 2 clinical testing and multiple pre-clinical development and research stage programs in the pipeline. MM-121, MM-111, and MM-398 are investigational drugs and have not been approved by the U.S. Food and Drug Administration or any international regulatory agency. The Company's proprietary Network Biology discovery platform, developed with the help of leading scientists from MIT and Harvard, integrates the fields of engineering, biology and computing to enable mechanism-based model driven discovery and development of both therapeutics and diagnostics. Merrimack is a privately-held company based in Cambridge, Massachusetts. For additional information, please visit http://www.merrimackpharma.com.

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