FOR IMMEDIATE RELEASE

Merrimack Pharmaceuticals Announces that Recruitment is Open in a Phase 1 Combination Study of MM-111 with Multiple Treatment Regimens in HER2 Positive Patients

Merrimack investigating whether MM-111 can safely be added to standard therapies used to treat both conventional HER2 positive breast cancers and other HER2 positive solid tumors.

CAMBRIDGE, Mass., April 20, 2011 – Merrimack Pharmaceuticals, Inc. announced today that five patients have received therapy in a Phase I clinical study combining MM-111 with multiple standard treatment regimens for patients with advanced HER2 positive (HER2+) solid tumors.

MM-111 is a bi-specific antibody that targets tumor cells over-expressing ErbB2/HER2. MM-111 is designed to inhibit the signaling between ErbB2/HER2 and ErbB3/HER3 thus disabling downstream signaling, including the phosphatidylinositol 3-kinase (PI3K) pathway, and preventing tumor proliferation. In this study, Merrimack is evaluating whether MM-111 could be safely added to standard therapies used to treat HER2 positive cancers. The study could also provide preliminary evidence of activity in patients with advanced/metastatic HER2 positive disease, an area of high unmet medical need for which there are limited treatment options.

"HER2 positive cancers are historically more aggressive and carry a poorer prognosis than other types of solid tumors," says Clet Niyikiza, Ph.D., Executive Vice President of Development, Merrimack Pharmaceuticals. "Patients with HER2 positive metastatic cancer eventually progress or are intolerant of current approved regimens. Close to half of the patients treated with such regimens fail to respond."

The Phase 1 study will evaluate the human safety and pharmacokinetics of MM-111 when administered in combination with either 1) cisplatin, capecitabine, and trastuzumab; 2) lapatinib and trastuzumab; or 3) paclitaxel and trastuzumab in patients with HER2 positive solid tumors. The study is being run in collaboration with US Oncology, a leading integrated oncology company that is affiliated with more than 1,400 physicians nationwide.

"Because ErbB3 activation has been indicated as a cause of resistance to current HER2 targeted treatments and chemotherapies, we plan to investigate MM-111 as a backbone combination therapy for patients with HER2 positive tumors," said Victor Moyo, M.D., Vice President of Clinical Investigations, Merrimack Pharmaceuticals.

About MM-111
MM-111, a bi-specific antibody, binds to two different target proteins: ErbB2 and ErbB3. By binding to ErbB2 and ErbB3, MM-111 stops the signaling between these two cell receptors and disables their impact on downstream signaling, including the PI3K pathway. Deactivating the PI3K pathway has been shown to inhibit tumor growth. MM-111 is under investigation in a Phase 1/2 monotherapy clinical trial in patients with HER2+ cancers, a Phase 1/2 combination trial with trastuzumab in patients with HER2+ breast cancer and a Phase 1 combination study with multiple treatment regimens in patients with HER2+ cancers. MM-111's Phase 1 monotherapy data were presented at the 2010 San Antonio Breast Cancer Symposium and pre-clinical data exhibiting MM-111's impact on several ErbB2 positive cancer models, both as a monotherapy and in combination, were presented at the 2009, 2010 and 2011 Annual Meeting of the American Association of Cancer Research.

About HER2 Positive Cancers
HER2 (also known as ErbB2) stands for "Human Epidermal Growth Factor Receptor 2." Approximately 1-in-5 breast cancers are HER2 positive (HER2+). HER2+ cancers tend to be more aggressive than other

types of breast cancer. HER2+ cancer cells are recognizable because they have produced too many copies of the HER2 gene and/or protein. In current test results for HER2 levels, patients' tumors are graded for HER2 according to degree of staining for HER2 protein on the cell or by the number of copies of the HER2 gene.

About Merrimack

Merrimack Pharmaceuticals, Inc. is a biopharmaceutical company dedicated to the discovery and development of novel medicines for the treatment of cancer. Merrimack is advancing a pipeline of engineered therapeutics paired with molecular diagnostics. In addition to several pre-clinical and research stage programs, Merrimack has five oncology candidates in clinical development or expected to enter clinical development this year: MM-398, in Phase 2 testing in partnership with PharmaEngine, Inc., MM-121 in Phase 2 testing in partnership with sanofi-aventis, MM-111 in Phase 1/2 testing and MM-302 and MM-151 which are both expected to enter Phase 1 clinical development this year. MM-398, MM-121, MM-111, MM-302 and MM-151 are investigational drugs and have not been approved by the U.S. Food and Drug Administration or any international regulatory agency. Merrimack uses its proprietary Network Biology discovery platform, developed with the help of leading scientists from MIT and Harvard, to integrate 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.

About US Oncology

US Oncology, Inc., a division of McKesson Corp., is a leading integrated oncology company. By uniting one of the largest community-based cancer treatment and research networks in America, US Oncology expands patient access to high-quality care and advances the science of cancer care. Headquartered in The Woodlands, Texas, US Oncology is affiliated with 1,400 community-based oncologists, and works with patients, hospitals, payers, and the medical industry across all phases of the cancer research and delivery continuum. By promoting the use of innovative technology, clinical research, evidence-based medicine and shared best practices, US Oncology improves patient outcomes and offers a better patient experience. For more information, visit www.usoncology.com.

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