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ENTREMED PRESENTS INITIAL CLINICAL RESULTS FOR ENMD-2076

Orphan Drug Designation and Canadian CTA Accelerate ENMD-2076 Program Momentum

ROCKVILLE, MD, February 9, 2009 – EntreMed, Inc. (Nasdaq: ENMD), a clinical-stage pharmaceutical company developing therapeutics for the treatment of cancer and inflammatory diseases, today announced recent developments in its program for ENMD-2076, an Aurora A/angiogenic kinase inhibitor. These developments include the presentation of initial results for a Phase 1 study in patients with refractory solid tumors as well as preclinical data showing significant potential for the use of ENMD-2076 in combination with platinum-based chemotherapy in breast cancer. In addition, EntreMed has received an Orphan Drug Designation from the FDA for the treatment of multiple myeloma using ENMD-2076. To further enhance its clinical development efforts for the drug candidate, a No Objection Letter was received by EntreMed from Health Canada permitting ENMD-2076 to be used in clinical trials within Canada. Data for the Phase 1 study in solid tumors, which is being conducted at the University of Colorado Cancer Center and the Dana-Farber Cancer Institute, were presented by Jennifer Diamond, M.D., during an oral presentation at the 11th International Symposium on Anti-Angiogenic Agents held last week in San Diego, California. Dr. Diamond is a Hematology/Oncology Fellow, working in the Developmental Therapeutics Program of the University of Colorado.

Results from the ongoing Phase 1 study in patients with refractory solid tumors demonstrated that ENMD-2076 administered orally in 28-day cycles was well tolerated. Data show preliminary evidence of antitumor activity as determined by reduction in tumor markers in ovarian and colorectal cancer patients. Dose escalation continues to determine the primary endpoints of the study, safety, pharmacokinetics and a Phase 2 dose.

During the symposium, EntreMed's Senior Director, Translational Research, William E. Fogler, Ph.D., presented results from a preclinical evaluation of ENMD-2076 in combination with cisplatin in a multi-drug resistant, triple-negative human breast carcinoma model. Triple-negative breast cancer is a specific subtype of breast cancer that does not express estrogen receptor, progesterone receptor, or Her2 genes. This subtype is

more aggressive and less responsive to standard treatment and is also associated with poorer patient prognosis. Data show the combination is well tolerated when using a maximally tolerated dose of cisplatin and a range of ENMD-2076 doses. Studies demonstrate a substantial dose-dependent antitumor combination effect as assessed by tumor regression. The enhanced antitumor activity observed with the combination of ENMD-2076 and cisplatin, over either agent alone, is correlated to biomarkers of angiogenesis, proliferation and apoptosis. These results provide a rationale for the clinical evaluation of ENMD-2076 in tumors responsive to platinum compounds, and particularly in triple-negative breast disease refractory to standard of care agents.

To further expand the clinical development of ENMD-2076, EntreMed has received a No Objection Letter (NOL) from the Therapeutic Products Directorate of Health Canada on its Clinical Trial Application to conduct a clinical study in Canada for ENMD-2076 in patients with hematological malignancies. A Canadian Clinical Trial Application (CTA) is similar to a United States Investigational New Drug (IND) application. The Company plans to commence a Phase 1 study in patients with relapsed or refractory leukemias in Canada later this year.

In addition, the U.S. Food and Drug Administration (FDA) granted orphan drug designation for ENMD-2076 for the treatment of multiple myeloma. The FDA accepted the Company's application based on review of data from preclinical studies. A Phase 1 study with ENMD-2076 in multiple myeloma is currently underway. Orphan drug is a designation by the Food and Drug Administration indicating a therapy developed to treat diseases that affect fewer than 200,000 persons in the United States. Sponsors of drugs granted orphan designation qualify for tax credit and marketing exclusivity incentives of the Orphan Drug Act.

EntreMed Vice President and Chief Medical Officer, Carolyn F. Sidor, M.D., M.B.A., commented, "The clinical program for ENMD-2076 is expanding. We have both a U.S. IND and a Canadian CTA in place, multiple Phase 1 studies underway, a Phase 1 study for leukemia is being planned; and now orphan drug designation in multiple myeloma. The CTA for ENMD-2076 represents a significant step forward for our Aurora/angiogenic kinase inhibitor program. With our ongoing trial in solid tumors, coupled with the initiation of the previously announced multiple myeloma study and the expected commencement of the leukemia study, the program covers a spectrum of potential indications. The staggered start of the Phase 1 multiple myeloma and leukemia studies will allow us to start treatment at a higher dose, thereby reducing the number of dose escalations required to determine a dose for subsequent Phase 2 hematological studies."

About ENMD-2076

ENMD-2076 is an orally-active, Aurora A/angiogenic kinase inhibitor with a unique kinase selectivity profile and multiple mechanisms of action. Preclinical studies with ENMD-2076 demonstrate significant antitumor activity, including tumor regression, in multiple solid and hematological malignancies. ENMD-2076 has been shown to inhibit a distinct profile of angiogenic tyrosine kinase targets in addition to Aurora A kinase and

other oncogenic proteins. Aurora kinases are key regulators of mitosis (cell division), and are often over-expressed in human cancers. ENMD-2076 targets a defined set of kinases, including Flt-3 and FGFR3, which have been shown to play important roles in the pathology of hematological cancers.

About EntreMed

EntreMed, Inc. is a clinical-stage pharmaceutical company committed to developing primarily ENMD-2076, a selective angiogenic kinase inhibitor, for the treatment of cancer. ENMD-2076 is currently in Phase 1 studies in advanced cancers and multiple myeloma. The Company's other therapeutic candidates include MKC-1, an oral cell-cycle regulator with activity against the mTOR pathway currently in multiple Phase 2 clinical trials for cancer, and ENMD-1198, a novel antimitotic agent currently in Phase 1 studies in advanced cancers. The Company also has an approved IND application for Panzem® in rheumatoid arthritis. Additional information about EntreMed is available on the Company's web site at www.entremed.com and in various filings with the Securities and Exchange Commission.

Forward Looking Statements

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act with respect to the outlook for expectations for future financial or business performance (including the timing of royalty revenues and future R&D expenditures), strategies, expectations and goals. Forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time. Forward-looking statements speak only as of the date they are made, and no duty to update forward-looking statements is assumed. Actual results could differ materially from those currently anticipated due to a number of factors, including those set forth in Securities and Exchange Commission filings under "Risk Factors," including risks relating to the need for additional capital and the uncertainty of additional funding; variations in actual sales of Thalomid®, risks associated with the Company's product candidates; the early-stage products under development; results in preclinical models are not necessarily indicative of clinical results, uncertainties relating to preclinical and clinical trials; success in the clinical development of any products; dependence on third parties; future capital needs; and risks relating to the commercialization, if any, of the Company's proposed products (such as marketing, safety, regulatory, patent, product liability, supply, competition and other risks).

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