ENTREMED

FOR IMMEDIATE RELEASE:
December 15, 2008
12:00 p.m. ET

COMPANY CONTACT:
Ginny Dunn
Associate Director
Corporate Communications
& Investor Relations
240.864.2643

MEDIA CONTACT:
David Schull
President
Russo Partners
212.845.4271

ENTREMED FOCUSES ON DEVELOPMENT OF ENMD-2076

Operations and Management Realigned to Provide Full Support for Clinical Activities

ROCKVILLE, MD, December 15, 2008 – EntreMed, Inc. (Nasdaq: ENMD), a clinical-stage pharmaceutical company announced today plans to focus the Company's resources on its most promising near-term product candidate, ENMD-2076, an Aurora/angiogenesis kinase inhibitor, as part of the Company's overall plan to lower operating costs and preserve capital. The plan calls for acceleration of the Company's 2009 clinical objectives for ENMD-2076, effectively transitioning the Company into a clinically-focused operation.

ENMD-2076 is a unique small molecule kinase inhibitor which, in preclinical studies, has displayed an excellent activity profile and is currently in Phase 1 clinical trials for solid tumors and multiple myeloma. The Company expects to have available clinical data in mid-2009. While the Company's other product candidates, including MKC-1, ENMD-1198 and Panzem® in rheumatoid arthritis, continue to be promising, the Company will consider further clinical development only if additional financial resources are available. As a result, the Company expects to reduce all research activities to the minimal level necessary to continue its efforts to realize their potential value through arrangements with third parties. The Company's plan for these programs is not expected to affect ongoing trials and current patients.

Carolyn F. Sidor, M.D., M.B.A., Vice President, and Chief Medical Officer, will continue to lead the clinical development of ENMD-2076. Mark R. Bray, Ph.D, Vice President Research, will lead the research support for the Company's clinical activities. These research activities will concentrate primarily on those actions that will generate critical data to support and enhance the understanding of the mechanism of action and potential clinical utility of ENMD-2076. Focus on these activities will allow the Company to restructure and reduce its current workforce by approximately 60% across all areas of the business. The Company expects to substantially implement this restructuring plan by December 31, 2008**.**

As part of the restructuring and in order to further reduce costs, President and Chief Executive Officer, James S. Burns, will be leaving the Company and resigning from the Board of Directors. In addition, Chief Financial Officer, Dane Saglio; Senior Vice President, Research & Development, Kenneth W. Bair Ph.D.; and Senior Vice President, Corporate & Business Development, Thomas H. Bliss, will be leaving the Company.

The senior management team going forward will include: Carolyn F. Sidor, M.D., Vice President & Chief Medical Officer; Mark R. Bray, Ph.D., Vice President, Research; Cynthia W. Hu, Vice President, General Counsel & Secretary who has been appointed Chief Operating Officer; and Kathy Wehmeir-Davis, Controller who has been appointed Principal Accounting Officer.

This senior management team will report to a newly formed Executive Committee of the Board comprised of three independent directors: Michael M. Tarnow, Dwight L. Bush and Jennie Hunter-Cevera, Ph.D.

"In addressing the near- to mid-term strategy for the Company, the Board concluded that focusing our human and financial resources on our most promising program and its upcoming clinical milestones is the best course for providing shareholder value," said Chairman of the Board, Michael M. Tarnow. "EntreMed is indebted to Jim Burns under whose leadership ENMD-2076 was acquired and, along with our other compounds, was readied for, and submitted to, clinical evaluation. Jim, together with CFO, Dane Saglio, worked tirelessly in difficult market conditions to assure that adequate funding would be available to advance our portfolio. This is a difficult period for many similar stage companies and while we are committed to adjusting and focusing our assets we recognize and appreciate the efforts of our departing officers and the many men and women who have dedicated their professional efforts to EntreMed."

James S. Burns, President & CEO commented, "These are difficult economic times for biotech companies. EntreMed has made the transition to a clinical organization, so a smaller focused organization will allow us to preserve cash and concentrate on ENMD-2076. I would like to thank all of my colleagues who have contributed the best of their time and talents to building our cancer pipeline."

The Company previously reported approximately $28 million in cash and short-term investments at the third quarter ended September 30, 2008 and expects to end the year with approximately $23 million**.** These resources, together with the remaining anticipated royalty revenues from the 2008 sales of Thalomid®, are expected to fund the Company's planned operations under its realigned structure for more than 18 months. A one-time charge of approximately $1.8 million is expected to be incurred in the fourth quarter of 2008.

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.

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. 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. In addition, ENMD-2076 is relatively selective for the Aurora A isoform in comparison to Aurora B. ENMD-2076 has shown significant cytotoxic activity preclinically towards a variety of human leukemia and myeloma cell lines, as well as towards *ex vivo*-treated human leukemia patient samples.

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).

###