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CUBIST PHARMACEUTICALS OPENS NEW RESEARCH FACILITY AT LEXINGTON HEADQUARTERS

Lexington, MA, September 29th, 2008 -- Cubist Pharmaceuticals, Inc. (NASDAQ: CBST) today opened a new, state-of-the-art, 35,000 square foot research facility at the company's headquarters. The laboratory will accommodate more than 100 employees focused on the discovery of important new molecules to treat serious diseases. Massachusetts Governor Deval Patrick attended the opening.

Chief Scientific Officer and Senior Vice President, Discovery & Non-clinical Development Steven Gilman, Ph.D., said of the new facility: "The additional lab space expands our discovery research and early development capabilities to meet our current and future needs. This progressive lab space provides for Cubist's expanding scientific community, and at the same time employs the latest environmentally-friendly construction techniques and advanced energy conservation management and materials."

"The expansion at Cubist marks the company's ongoing success, and highlights the strength of the life sciences industry in Massachusetts," said Governor Deval Patrick.

Cubist President and CEO Mike Bonney said, "I want to acknowledge Governor Patrick's commitment to the life sciences industry in Massachusetts. I also want to thank the Governor and the Legislature for their leadership in making the recently enacted Life Sciences Initiative a reality — it is now clear that Massachusetts leads the nation with respect to its commitment to remain a key center for the life sciences industry. I also applaud the Governor and the Legislature for their foresight in recognizing the need for increased education in the sciences, a critical component in the landmark Life Sciences Initiative. Including in that legislation a \$25 million fund to help provide support for workforce training, along with funding for research grants, fellowships, and other programs designed to support education and research in the life sciences will further enhance Massachusetts' position as a leader in life sciences."

About Cubist

Cubist Pharmaceuticals, Inc. is a biopharmaceutical company focused on the research, development, and commercialization of pharmaceutical products that address unmet medical needs in the acute care environment. Cubist developed and commercialized CUBICIN® (daptomycin for injection), a Gram-positive first-in-class lipopeptide antibiotic. In the U.S. Cubist also promotes MERREM® I.V. (meropenem for injection), Astra Zeneca's established broad spectrum (carbapenem class) I.V. antibiotic. The Cubist product pipeline includes ecallantide, a recombinant human protein in Phase 2 clinical trials for the prevention of blood loss during cardiothoracic surgery, and pre-clinical programs that address unmet medical needs in Gram-negative infections, CDAD (*Clostridium difficile*-associated diarrhea), and HCV (Hepatitis C infections). Cubist is headquartered in Lexington, MA. Additional information can be found at Cubist's web site at www.cubist.com.

Cubist Safe Harbor

This press release contains forward-looking statements, including statements regarding Cubist's pipeline programs. There are many factors that could cause actual results to differ materially from those in these forward-looking statements. These factors include the following: (i) our ability to develop, manufacture and achieve commercial success for our product candidates; (ii) whether the U.S. Food and Drug Administration, or FDA, accepts proposed clinical trial protocols that may be achieved in a timely manner for our product candidates; (iii) our ability to conduct successful clinical trials in a timely manner; (iv) the clinical efficacy and safety of our product candidates as they relate to standards for regulatory approval and in comparison to competitive products; (v) our ability to finance our operations; (vi) our ability to adequately develop and maintain adequate protection for the intellectual property related to our pipeline candidates; and (vii) a variety of risks common to our industry, including ongoing regulatory review, public and

investment community perception of the industry, legislative or regulatory changes, and our ability to attract and retain talented employees. Drug development involves a very high degree of risk. Success of a product candidate in early stage clinical trials or pre-clinical trials does not mean that subsequent trials will also be successful or that the candidate will be successfully commercialized. Additional factors that could cause actual results to differ materially from those projected or suggested in any forward-looking statements are contained in our most recent 10-K and 10-Q filings with the Securities and Exchange Commission, including those factors discussed under the caption "Risk Factors" in such filings. These statements speak only as of the date of this release, and we undertake no obligation to update or revise these statements, except as may be required by law.

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