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CUBIST PHARMACEUTICALS ACQUIRES ILLUMIGEN BIOSCIENCES

Expects to File IND for Lead HCV Compound IB657 in 2008

Lexington, MA, and Seattle, WA December 26 2007 -- Cubist Pharmaceuticals, Inc. (NASDAQ: CBST) and Illumigen Biosciences, Inc. announced today that Cubist has acquired Illumigen pursuant to a definitive agreement and plan of merger entered into on December 24, 2007. Illumigen's lead compound is IB657, a protein therapeutic in pre-clinical development for the treatment of Hepatitis C Virus (HCV) infections. Cubist expects that an IND for IB657 will be filed in 2008.

Pursuant to the terms of the agreement, which was approved by the Boards of Directors of each company, Cubist will pay to the Illumigen stockholders $9 Million (after adjusting for Illumigen's closing cash balance) in cash and Illumigen has become a wholly-owned subsidiary of Cubist. Cubist will make payments during the development of IB657 as a therapy for HCV infections of up to $75.5 Million upon achieving certain development and regulatory milestones. If Cubist develops Illumigen products for the treatment of viruses other than HCV, development and regulatory milestone payments of up to $117 Million could apply. Assuming that HCV or other Illumigen antiviral products are commercialized, additional milestone payments of up to $140 Million, as well as tiered royalties, could apply.

Mike Bonney, President and CEO of Cubist Pharmaceuticals, said "We are excited about the opportunity of filing an IND for IB657 in the coming year and advancing it into the clinic. An HCV product candidate is an important addition to our pipeline, and leverages our antiinfective development, regulatory, and commercialization expertise."

Donald Elmer, Chairman of Illumigen Biosciences, said "We believe that Cubist is ideally positioned to exploit the immediate opportunity for IB657 against HCV, and potentially for additional viral infections."

No financing will be necessary to complete the acquisition of Illumigen or to fund the development of IB657. The impact of any charges related to purchase accounting, including in-process R&D, will be recorded in Cubist's 2007 full-year results.

About HCV
HCV is a virus that primarily targets the liver, currently causing infection in more than 4 million people in the U.S. and 180 million people worldwide. The virus is difficult to eradicate, with infected patients eventually developing chronic liver infection, and, in some cases, liver cancer. HCV infection is the most common reason for liver transplantation in the U.S. and Western Europe and the leading cause of death from liver disease.

No vaccine is currently available to prevent HCV infection. Current HCV therapy combines a pegylated-interferon with ribavirin for up to 48 weeks of treatment. Current therapy has significant problems with both safety (e.g., significant treatment limiting adverse effects and contraindications) and efficacy (e.g., 80% of HCV infections in the U.S. are due to genotype 1 virus for which the efficacy rate of current therapy is approximately 40 to 50%). The HCV market was $2.2 Billion in 2005 and is projected to double to $4.4 Billion in 2010. This growth will be driven by an increase in the number of patients being treated, uptake of new drugs, and the use of multi-drug treatment regimens.

About IB657
IB657 is a pre-clinical protein therapeutic being developed for treatment of HCV infection. Based on its antiviral activity, IB657 may have therapeutic utility in the treatment of certain other viral diseases. Pre-clinical studies to assess activity against these viruses may occur in parallel with its development for HCV infection.

About Illumigen
Illumigen Biosciences, Inc. was co-founded by Drs. Charles Magness and Shawn Iadonato in 2000 to discover beneficial human genetic mutations that might provide a roadmap for novel therapeutic drug mechanisms. The discovery of IB657 resulted from an investigation into the cause of apparent immunity to HCV infection enjoyed by people with a specific naturally occurring genetic mutation. Prior to founding Illumigen, Drs. Magness and Iadonato both were involved in the Human Genome Project. Illumigen is a Seattle-based, privately held biopharmaceutical company financed by Pacific Horizon Ventures in Seattle, WA. Additional information can be found at Illumigen's web site at www.illumigen.com and www.pacifichorizon.com.

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. In the U.S., Cubist markets CUBICIN® (daptomycin for injection), the first antibiotic in a new class of anti-infectives called lipopeptides. The Cubist product pipeline includes pre-clinical programs that address unmet medical need in Gram-positive infections, Gram-negative infections, and CDAD (*Clostridium difficile*-associated diarrhea). Cubist is headquartered in Lexington, MA. Additional information can be found at Cubist's web site at www.cubist.com.

Cubist Safe Harbor Statement
Statements contained herein that are not historical fact may be forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and such statements are subject to a variety of risks and uncertainties. There are a number of important factors that could cause actual results to differ materially from those projected or suggested in any forward-looking statements made by Cubist. These factors include, but are not limited to: (i) the level of acceptance of CUBICIN by physicians, patients, third-party payors and the medical community; (ii) any changes in the current or anticipated market demand or medical need for CUBICIN; (iii) any unexpected adverse events related to CUBICIN, particularly as CUBICIN is used in the treatment of a growing number of patients around the world; (iv) competition in the markets in which we and our partners market CUBICIN, including marketing approvals for new products that will be competitive with CUBICIN; (v) whether the U.S. Food and Drug Administration, or FDA, accepts proposed clinical trial protocols that may be achieved in a timely manner for additional studies of CUBICIN or any other drug candidate we seek to enter into clinical trials; (vi) whether we will receive, and the potential timing of, regulatory approvals or clearances to market CUBICIN in countries where it is not yet approved; (vii) legislative and policy changes in the United States and other jurisdictions where our products are sold that may affect the ease of getting a new product or a new indication approved; (viii) changes in government reimbursement for our or our competitors' products; (ix) whether or not third parties may seek to market generic versions of our products by filing Abbreviated New Drug Applications, or ANDAs, with the FDA, and the results of any litigation that we file to defend and/or assert our patents against such generic companies; (x) our ability to conduct successful clinical trials in a timely manner; (xi) the effect that the results of ongoing or future clinical trials of CUBICIN may have on its acceptance in the medical community; (xii) the ability of our third party manufacturers, including our single source provider of active pharmaceutical ingredient, or API, to manufacture sufficient quantities of CUBICIN in accordance with Good Manufacturing Practices and other requirements of the regulatory approvals for CUBICIN and at an acceptable cost; (xiii) our dependence upon collaborations with our partners and our partners' ability to execute on development, regulatory and sales expectations in their territories; (xiv) our ability to finance our operations; (xv) the effectiveness of our sales force and our sales force's ability to access targeted physicians; (xvi) potential costs resulting from product liability or other third party claims; (xvii) our ability to protect our proprietary technologies; (xviii) our ability to consummate the transaction with Illumigen, (xix) our ability to develop and commercialize products based on IB657, (xx) the market for HCV products and the demand for products based on IB657; (xxi) our ability to integrate successfully the operations of Illumigen or any other business that we may acquire and the potential impact of the acquisition of Illumigen or any other future acquisition on our financial results; (xxii) our ability to discover, acquire or in-license drug candidates and develop and achieve commercial success for drug candidates; and (xxiii) 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.

Additional factors that could cause actual results to differ materially from those projected or suggested in any forward-looking statements are contained in Cubist's recent filings with the Securities and Exchange Commission, including those factors discussed under the caption "Risk Factors" in such filings.

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