Gilead Announces Interim 12-Month Phase III Study Results for Aztreonam Lysine for Inhalation in Patients With Cystic Fibrosis

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-- AIR-CF3 Data Presented at European Cystic Fibrosis Conference --

PRAGUE, Czech Republic, Jun 13, 2008 (BUSINESS WIRE) -- Gilead Sciences, Inc. (Nasdaq:GILD) today announced results from an interim analysis of 12-month data from its open-label, Phase III AIR-CF3 (006) study of aztreonam lysine for inhalation, an investigational therapy in development for the treatment of people with cystic fibrosis (CF) who have pulmonary Pseudomonas aeruginosa (P. aeruginosa). AIR-CF3 is an ongoing, multi-center study designed to evaluate the safety of repeated exposure to aztreonam lysine in cystic fibrosis patients who originally participated in the pivotal Phase III AIR-CF1 (007) or AIR-CF2 (005) studies. These data were presented by Christopher M. Oermann, MD, Associate Professor of Pediatrics, Director, Pediatric Pulmonary Fellowship Training Program, Baylor College of Medicine, at the 31st Annual European Cystic Fibrosis Conference taking place June 11-14 in Prague, Czech Republic.

"Cystic fibrosis-related pseudomonal infection of the tracheo-bronchial tree is a chronic condition which, once established, can be treated but not eliminated. The steadily increasing life expectancy of CF patients and the chronic nature of this infection underscore the importance of long-term safety and efficacy data for potential new respiratory therapies," said Dr. Oermann. "Since the usual course of lower respiratory tract pseudomonal infection is progressive loss of lung function, it is important that the CF community have long-term data to best understand the therapeutic profile of treatments for this disease."

In AIR-CF3, 274 patients received treatment with 75 mg of aztreonam lysine administered twice-daily or three times daily by the PARI eFlow(R) Electronic Nebulizer in accordance with the same regimen they received in the AIR-CF1 or AIR-CF2 studies. Baseline was defined as the first visit in the AIR-CF3 study. The mean age of patients treated with aztreonam lysine in the trial was 28.5 years. At baseline, the mean overall score on the Respiratory Symptoms scale of the Cystic Fibrosis Questionnaire-Revised (CFQ-R), a patient-reported outcome tool, was 61.9 points (on a scale of 0 to 100). The mean percent predicted forced expiratory volume in one second (FEV1), a standard measure of pulmonary function, was 55.6 percent overall at baseline.

Patients will be followed for an overall treatment period of 18 months. At the time of this analysis, 64 patients had discontinued treatment. The most common reasons for discontinuations were personal or administrative reasons or adverse events. A total of 99 patients have completed the full 18 months of treatment and the remaining 111 patients currently receiving aztreonam lysine treatment are expected to complete the study by the fourth quarter of 2008.

Study Results

In this analysis, 120 patients had reached the 12-month, six treatment course (28 days on and 28 days off) study milestone, with 48 patients in the twice-daily group and 72 patients in the three times daily group. A compliance rate of 95 percent was observed over six courses of treatment and no difference in compliance was observed between the twice-daily and three times daily regimens.

Patients receiving aztreonam lysine three times daily experienced improvements in FEV1 after completion of six courses of treatment, with a mean change from baseline of 5.2 percent (SD=18.4; n=70). These patients also experienced a mean improvement from baseline of 4.2 points in the CFQ-R Respiratory Symptoms scale (SD=20.2; n=70) after completion of six courses of treatment. Mean values for the three times daily group did not drop below baseline FEV1 percent predicted or CFQ-R Respiratory Symptoms scores during any on-treatment or off-treatment interval over the first 12 months of treatment.

Over six courses of treatment, aztreonam lysine three times daily was also associated with reductions in P. aeruginosa colony forming units (a measure of the amount of bacteria present in the lungs), with a mean change from baseline of -0.42

(log reduction, SD=2.11; n=52) in the three times daily group.

The incidence of hospitalization for all courses pooled over a period of up to 18 months (n=274 patients) was 41.2 percent (n=113) and the median time to hospitalization was 390 days.

Aztreonam lysine was well tolerated with a safety profile consistent with the expected symptoms of a patient with underlying cystic fibrosis disease. In an integrated analysis of patients receiving aztreonam lysine during the placebo-controlled AIR-CF1 and AIR-CF2 studies, the most common adverse events were cough, nasal congestion, pyrexia, wheezing, pharyngolaryngeal pain, chest discomfort and rhinorrhea. No suggestion of increasing incidence of adverse events was shown over repeated courses of aztreonam lysine.

No changes in pseudomonas sensitivity to aztreonam lysine were observed (as measured by minimum inhibitory concentrations increased by four fold in either the MIC50 or MIC90) in the three times daily group.

"Chronic pseudomonal infection represents the single greatest cause of morbidity and mortality for people with cystic fibrosis," said J. Stuart Elborn, MD, FRCP, Professor of Respiratory Medicine at Queen's University of Belfast and President of the European Cystic Fibrosis Society. "Given the challenges of antibiotic resistance, there is a need for a number of inhaled antibiotics -- working through different mechanisms of action -- to treat pseudomonal infection in CF."

Aztreonam lysine for inhalation is an investigational therapy and has not yet been determined safe or efficacious in humans.

About the Aztreonam Lysine Phase III Clinical Program

The Phase III AIR-CF clinical program was designed to determine the safety and efficacy of aztreonam lysine for inhalation for use in people with cystic fibrosis who have pulmonary P. aeruginosa. In each of these studies, aztreonam lysine for inhalation was administered by the PARI eFlow Electronic Nebulizer.

AIR-CF1 was a randomized, double-blind, placebo-controlled study designed to assess the safety and efficacy of a 28-day treatment course of aztreonam lysine in people with CF who have pulmonary P. aeruginosa. Patients were randomized to receive 28 days of treatment with 75 mg aztreonam lysine or volume-matched placebo administered three times daily by the PARI eFlow Electronic Nebulizer. Patients were followed for an overall study period of 42 days, with 14 days of observation after completing aztreonam lysine or placebo therapy. Results from this study were presented at the North American Cystic Fibrosis Conference (NACFC) in Anaheim, California on October 4, 2007.

AIR-CF2 was a randomized, double-blind, placebo-controlled study designed to assess the safety and efficacy of a 28-day treatment course with aztreonam lysine for inhalation following a 28-day treatment course of tobramycin inhalation solution in people with CF who have pulmonary P. aeruginosa. Patients were randomized to receive 28 days of treatment with 75 mg of aztreonam lysine or volume-matched placebo each administered twice-daily or three times daily by the PARI eFlow Electronic Nebulizer. Patients were followed for an overall study period of 126 days, with 56 days of observation after receiving aztreonam lysine for inhalation therapy or placebo. Results from this study were presented at the Cystic Fibrosis Therapeutics Development Network conference in Seattle, Washington on April 19, 2007 and at the European Cystic Fibrosis Conference in Belek, Turkey on June 14, 2007.

Gilead also recently initiated a European Phase III study (0110) comparing aztreonam lysine for inhalation to inhaled tobramycin. 0110 is an open-label, multi-center, randomized, parallel group study designed to assess the comparative safety and efficacy of aztreonam lysine for inhalation and tobramycin nebulizer solution in adult and pediatric cystic fibrosis patients with pulmonary P. aeruginosa. The primary efficacy endpoint is the relative change in FEV1 percent predicted at Day 28 compared to baseline. The study will enroll approximately 200 patients across Europe. Patients will be randomized to receive 28-day, intermittent, repeating courses of either aztreonam lysine for inhalation or tobramycin nebulizer solution over a 24-week treatment period. The total study period will be 26 weeks.

About Aztreonam Lysine for Inhalation

Aztreonam lysine for inhalation is an antibiotic candidate currently being evaluated for people with cystic fibrosis who have pulmonary P. aeruginosa. Aztreonam has potent activity against Gram-negative bacteria such as P. aeruginosa. Aztreonam formulated with arginine is a U.S. Food and Drug Administration (FDA)-approved agent for intravenous administration. Aztreonam lysine is a proprietary formulation of aztreonam developed specifically for inhalation and has been designated with orphan drug status in the United States and Europe.

Gilead submitted its U.S. New Drug Application for aztreonam lysine for inhalation to the FDA on November 16, 2007. The FDA has established a target review date, under the Prescription Drug User Fee Act, of September 16, 2008.

In Europe, the investigational product is referred to as aztreonam lysine 75 mg powder for nebuliser solution. Gilead submitted its Marketing Authorisation Application (MAA) for marketing approval of aztreonam lysine 75 mg powder for nebuliser solution (aztreonam lysine) in the European Union on March 7, 2008. Gilead submitted its application for aztreonam lysine in Australia on November 30, 2007 and in Canada on March 21, 2008.

About PARI Pharma and the eFlow(R) Electronic Nebulizer

Aztreonam lysine for inhalation is delivered by the eFlow(R) Electronic Nebulizer, developed by PARI Pharma GmbH. eFlow is a portable nebulizer that enables aerosolization of liquid medications via a vibrating, perforated membrane. PARI Pharma also contributed to the development and optimization of the drug formulation (aztreonam lysine for inhalation) for delivery via eFlow. Based on PARI's 100-year history working with aerosols, PARI Pharma is dedicated to advancing inhalation therapies by developing innovative delivery platforms and new pharmaceutical formulations that work together to improve patient care.

About Cystic Fibrosis

Today, more than 70,000 people worldwide have cystic fibrosis. Cystic fibrosis is a chronic, debilitating genetic disease. A major characteristic of cystic fibrosis is production of abnormally thick, sticky mucus in the lungs that traps bacteria and predisposes people with cystic fibrosis to lung infections, which damage their lungs. Pulmonary infection with Gram-negative bacteria, particularly pulmonary P. aeruginosa, represents the single greatest cause of morbidity and mortality among people with cystic fibrosis. Currently there is no known cure for cystic fibrosis, and the goal of cystic fibrosis therapy is to control symptoms and prevent further lung damage.

About Gilead Sciences

Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes innovative therapeutics in areas of unmet medical need. The company's mission is to advance the care of patients suffering from life-threatening diseases worldwide. Headquartered in Foster City, California, Gilead has operations in North America, Europe and Australia.

This press release includes forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that are subject to risks, uncertainties and other factors, including the risks that the marketing authorization applications submitted by Gilead for aztreonam lysine for inhalation for the treatment of cystic fibrosis in the United States, the European Union, Australia and Canada may not be granted under the timelines currently anticipated, or at all. These risks, uncertainties and other factors could cause actual results to differ materially from those referred to in the forward-looking statements. The reader is cautioned not to rely on these forward-looking statements. These and other risks are described in detail in Gilead's Annual Report on Form 10-K for the year ended December 31, 2007 and its Quarterly Reports on Form 10-Q for the first quarter of 2008, as filed with the U.S. Securities and Exchange Commission. All forward-looking statements are based on information currently available to Gilead, and Gilead assumes no obligation to update any such forward-looking statements.

For more information on Gilead, please call the Gilead Public Affairs Department at 1-800-GILEAD-5 (1-800-445-3235) or visit www.gilead.com.

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