August 11, 2008

Key Studies Published Supporting FDA Approval of Regeneron's ARCALYST® (rilonacept)

Studies highlight rational approach to clinical development for rare, inherited diseases

Tarrytown, NY (August 11, 2008) – Regeneron Pharmaceuticals, Inc. (Nasdaq: **REGN**) today announced the publication of the results of three studies which supported the U.S. Food and Drug Administration (FDA) regulatory submission for ARCALYST® (rilonacept) Injection for Subcutaneous Use for the treatment of Cryopyrin-Associated Periodic Syndromes (CAPS).

Two studies were published in the August 2008 issue of *Arthritis and Rheumatism*, the flagship publication of the American College of Rheumatology. The first study was the preliminary trial to evaluate the impact of ARCALYST on markers of inflammation, clinical response, and safety and the second was the pivotal efficacy and safety clinical trial of ARCALYST. A third study, conducted to develop and validate a key symptoms assessment scale for CAPS patients and subsequently utilized as the primary endpoint measure in the pivotal clinical study of ARCALYST, was published online in the August 2008 issue of *Current Medical Research and Opinion*.

ARCALYST, also known as interleukin-1 (IL-1) Trap, is a targeted inhibitor of IL-1, which is the key driver of inflammation in CAPS. ARCALYST is the only therapy approved for patients with CAPS, including Familial Cold Auto-inflammatory Syndrome (FCAS) and Muckle-Wells Syndrome (MWS) in adults and children 12 and older. CAPS represent a group of rare, inherited, auto-inflammatory conditions characterized by life-long, recurrent symptoms of rash, fever/chills, joint pain, eye redness/pain, and fatigue. Intermittent, disruptive exacerbations or flares can be triggered at any time by exposure to cooling temperatures, stress, exercise, or other unknown stimuli. The incidence of CAPS has been reported to be approximately one in 1,000,000 people in the United States.

"The ultimate goal of our work over the last ten years has been to find an effective therapy for Cryopyrin-Associated Periodic Syndromes. We began by characterizing the unusual clinical features and debilitating impact of CAPS and then discovered the underlying genetic basis of the disease. A major concern was whether a pharmaceutical company would expend the significant resources necessary to develop a treatment for a disease that has been diagnosed in only a few hundred patients in the United States," stated Hal Hoffman, M.D., Associate Professor, University of California, San Diego and a leading expert on CAPS. "These publications highlight that scientists, clinicians, and industry can collaborate to efficiently, yet rigorously, develop therapies for rare diseases with significant unmet medical need. As a result of this collaboration, patients with CAPS now have an approved treatment available that can help them to effectively manage their disease."

In the initial, open-label pilot evaluation of ARCALYST® (rilonacept), five patients with the Familial Cold Auto-inflammatory Syndrome (FCAS) sub-type of CAPS experienced a marked improvement in symptoms with a corresponding reduction in markers of inflammation. Based upon these convincing findings, a pivotal clinical program was designed to support a registration filing. In order to develop a basis for measuring symptom severity as reported by CAPS patients in a disease that waxes and wanes from day to day, an observational, non-pharmacologic study was conducted in 48 patients with either FCAS or Muckle-Wells Syndrome (MWS). Systematic evaluation of a series of patient-reported outcomes tools resulted in the development of a validated CAPS symptoms measurement instrument with high internal consistency and reliability.

In the pivotal, randomized, double-blind clinical study, 47 patients with FCAS or MWS were randomized to receive either ARCALYST or placebo for six weeks. Patients treated with ARCALYST experienced an 84 percent statistically significant improvement in overall symptom scores versus baseline, whereas those treated with placebo did not experience a significant improvement in their symptoms (13 percent improvement). Ninety-six percent of patients receiving ARCALYST experienced at least a 30 percent improvement in symptoms during this six-week phase of the study. All patients were subsequently given single-blind ARCALYST for nine weeks. Patients were then re-randomized to either ARCALYST or placebo and evaluated over a subsequent nine-week period. Patients remaining on ARCALYST continued to experience symptom control, whereas those receiving placebo experienced a statistically significant worsening of their CAPS symptoms. The most commonly reported adverse reactions reported with ARCALYST were injection-site reaction and upper respiratory tract infection.

"The development process for ARCALYST for the treatment of CAPS highlights Regeneron's overall approach to drug development — to develop drugs targeted at well-documented mediators of disease, focus clinical development on diseases in which those biologic mediators play a primary underlying role, establish clinical proof of concept, and then strive to conduct efficient, pivotal studies with well-validated clinical endpoints," stated George D. Yancopoulos, M.D., Ph.D., President of Regeneron Research Laboratories. "In this case, recognizing that IL-1 is an active mediator of inflammatory disease, we developed ARCALYST to potently inhibit IL-1 in the bloodstream before it can bind to its receptors. Once it was recognized that the genetic mutation associated with CAPS is associated with IL-1 overproduction, we rapidly initiated a pilot study to determine

the clinical impact of IL-1 inhibition with ARCALYST. Based upon the clear-cut responses experienced by the CAPS patients in the pilot study, we then developed a validated instrument to assess the severity of CAPS symptoms over time and introduced that instrument into two randomized, placebo-controlled pivotal study phases."

About Cryopyrin-Associated Periodic Syndromes (CAPS)
Recently, medical researchers have identified and described a group of rare, inherited, auto-inflammatory disorders, known as Cryopyrin-Associated Periodic Syndromes or CAPS. Three related conditions make up the broader disease known as CAPS: Familial Cold Auto-inflammatory Syndrome (FCAS), Muckle-Wells Syndrome (MWS), and Neonatal-Onset Multisystem Inflammatory Disease (NOMID). ARCALYST has not been studied in patients with NOMID.

CAPS are characterized by life-long, recurrent symptoms of rash, fever/chills, joint pain, eye redness/pain, and fatigue. Intermittent, disruptive exacerbations or flares can be triggered at any time by exposure to cooling temperatures, stress, exercise, or other unknown stimuli.
CAPS are generally caused by autosomal-dominant mutations (changes) in the *NLRP-3* (previously known as *CIAS1*) gene and resultant alterations in the protein, cryopyrin, which it encodes. Cryopyrin, active in circulating infection-fighting white blood cells, controls the production of a protein called interleukin-1 (IL-1). As part of the body's infection-fighting defense system, IL-1 circulates throughout the body and can trigger inflammatory reactions when it binds to inflammatory cells. Researchers have found that alterations in the cryopyrin protein lead to over-production of IL-1, resulting in an inflammatory response and the symptoms of CAPS. Most, but not all, patients with CAPS have the *NLRP-3* gene mutation.

Important Information About ARCALYST® (rilonacept) ARCALYST is indicated for the treatment of Cryopyrin-Associated Periodic Syndromes (CAPS), including Familial Cold Auto-inflammatory Syndrome (FCAS) and Muckle-Wells Syndrome (MWS) in adults and children 12 and older. IL-1 blockade may interfere with immune response to infections. Serious, life-threatening infections have been reported in patients taking ARCALYST. ARCALYST should be discontinued if a patient develops a serious infection. Taking ARCALYST with tumor necrosis factor inhibitors is not recommended because this may increase the risk of serious infections. Treatment with ARCALYST should not be initiated in patients with active or chronic infections. Patients should not receive a live vaccine while taking ARCALYST. It is recommended that patients receive all recommended vaccinations prior to initiation of treatment with ARCALYST. Patients should be monitored for changes in their lipid profiles and provided with medical treatment if warranted. Hypersensitivity reactions associated with ARCALYST administration have been rare. Please see the full Prescribing Information for ARCALYST, available online at www.regeneron.com/ARCALYST-fpi.pdf.

About Regeneron Pharmaceuticals, Inc.
Regeneron is a fully integrated biopharmaceutical company that discovers, develops, and commercializes medicines for the treatment of serious medical conditions. In addition to ARCALYST® (rilonacept) Injection for Subcutaneous Use, its first commercialized product, Regeneron has therapeutic candidates in clinical trials for the potential treatment of cancer, eye diseases, and inflammatory diseases, and has preclinical programs in other diseases and disorders. Additional information about Regeneron and recent news releases are available on Regeneron's web site at www.regeneron.com.

Forward Looking Statement
This news release discusses historical information and includes forward-looking statements about Regeneron and its products, development programs, finances, and business, all of which involve a number of risks and uncertainties, such as risks associated with preclinical and clinical development of Regeneron's drug candidates, determinations by regulatory and administrative governmental authorities which may delay or restrict Regeneron's ability to continue to develop or commercialize its product and drug candidates, competing drugs that are superior to Regeneron's product and drug candidates, uncertainty of market acceptance of Regeneron's product and drug candidates, unanticipated expenses, the availability and cost of capital, the costs of developing, producing, and selling products, the potential for any collaboration agreement, including Regeneron's agreements with the sanofi-aventis Group and Bayer HealthCare, to be canceled or to terminate without any product success, risks associated with third party intellectual property, and other material risks. A more complete description of these and other material risks can be found in Regeneron's filings with the United States Securities and Exchange Commission (SEC), including its Form 10-K for the year ended December 31, 2007 and Form 10-Q for the quarter ending June 30, 2008. Regeneron does not undertake any obligation to update publicly any forward-looking statement, whether as a result of new information, future events, or otherwise unless required by law.

Contact Information:
Investor Relations
914-345-7640
invest@regeneron.com

Laura Lindsay
Corporate Communications
914-345-7800
laura.lindsay@regeneron.com

Lauren Tortorete

Media Relations
212-845-5609
ltortorete@biosector2.com