



Long-Term Soliris(R) Treatment Resulted in Sustained Reduction in Hemolysis and Improved Kidney Function in Japanese Patients with PNH

In AEGIS Study Extension Presented at ASH Annual Meeting, Two-Thirds of Japanese Patients Were Affected by Chronic Kidney Disease at Enrollment Abstract 1980, Poster Board I-1002

CHESHIRE, Conn., Dec 05, 2009 (BUSINESS WIRE) -- [Alexion Pharmaceuticals, Inc.](#) (Nasdaq: ALXN) today announced positive data from the 26-week extension of the AEGIS study, an open-label registration study examining [Soliris^{\(R\)} \(eculizumab\)](#) for the treatment of Japanese patients with [paroxysmal nocturnal hemoglobinuria](#) (PNH). The study showed that after 38 weeks of Soliris treatment, all patients with chronic kidney disease (CKD), a clinical consequence of chronic hemolysis, either stabilized or improved. Other studies have shown that kidney disease accounts for 18 percent of deaths among Japanese patients with PNH. (1) In the studied patients, Soliris therapy was also associated with a sustained reduction in hemolysis, which resulted in a further improvement in levels of fatigue, as well as a maintained improvement in anemia and a reduction in transfusion requirements.

The data were presented today at the [51st Annual Meeting of the American Society of Hematology \(ASH\)](#) in a poster titled ["Chronic Renal Insufficiency in Japanese Patients with Paroxysmal Nocturnal Hemoglobinuria \(PNH\): Improvement with Eculizumab Treatment in the Long-Term Follow-up of the AEGIS Study."](#)

"Chronic kidney disease is one of the most common and life-threatening complications of hemolysis among Japanese patients with PNH. In this extension study, clinical improvements in kidney function with eculizumab therapy were particularly evident in patients with early stage kidney disease, which underscores the importance of early intervention with eculizumab," said Yuzuru Kanakura, M.D., Ph.D., Professor of Hematology and Oncology at Osaka University Hospital in Suita, Japan, and lead author of the study. "We are pleased that eculizumab continues to show a sustained reduction in hemolysis, beneficial effects on kidney function, and a significant improvement in quality of life."

Initial efficacy and safety data from the 12-week AEGIS study were presented at the ASH meeting in 2008. This 26-week extension study, which is still ongoing, further evaluated Soliris in Japanese patients with PNH and allowed for a comparison with the results from the Phase III, multinational trials conducted in the United States and Europe.

"The long-term data from the AEGIS study continue to be consistent with those observed in the SHEPHERD and TRIUMPH Phase III clinical trials, which also showed significant reductions in hemolysis, anemia, transfusion dependence, and fatigue among patients with PNH in the U.S. and Europe who were treated with Soliris," said Leonard Bell, M.D., Chief Executive Officer of Alexion. "We anticipate that regulatory authorities in Japan may make a decision on our application for marketing authorization next year, and we are preparing to make Soliris available to physicians and patients in Japan in late 2010."

Clinical Data from the AEGIS Extension Study

Twenty-seven Japanese patients entered the extension of the AEGIS study. Patients received 600 mg of Soliris every 7 days (+/- 2 days) for 4 weeks; 900 mg one week later; then 900 mg every 14 days (+/- 2 days) for a total of 38 weeks of therapy. (2)

Results showed that there was a sustained reduction in intravascular hemolysis, as measured by lactate dehydrogenase (LDH), through the 38 weeks of treatment. LDH decreased 87% from a median of 1,814 U/L at baseline to a median of 232 U/L at 38 weeks of treatment ($p < 0.001$).

A significant improvement in chronic kidney disease (CKD) stage was also seen in Japanese patients on long-term Soliris treatment. Two-thirds (19/29) of patients enrolled in the AEGIS study demonstrated evidence of CKD at baseline prior to eculizumab. At week 38, 33% (9/27) of patients showed improvement in CKD while 67% (18/27) showed no change from baseline and no patients (0%) worsened ($p < 0.05$). Further, 53% (9/17) of patients with CKD at baseline demonstrated improvement. Among the 9 patients who showed improvement, 8 had stage 1-2 CKD at baseline and one had stage 3-5 at baseline.

Soliris treatment continued to appear to be safe and well-tolerated in treated patients during the initial 26-weeks of the extension study. Four patients experienced 9 serious adverse events (SAEs); one patient experienced 4 SAEs that were reported as probably or possibly related to the drug. Most adverse events (AEs) were mild in severity. The most frequent AEs were nasopharyngitis (52%), headache (19%), blood alkaline phosphatase increases (19%) and anemia (11%). No thrombotic

events or meningococcal infections were reported during Soliris treatment.

About PNH

PNH is an ultra-rare blood disorder that strikes people of all ages, with an average age of onset in the early 30s. (3) Patients with PNH suffer from hemolysis (red blood cell destruction) which leads to thromboses (blood clots), disabling fatigue, anemia, impaired quality of life, pulmonary hypertension, shortness of breath, recurrent pain, kidney disease and intermittent episodes of dark-colored urine (hemoglobinuria). (4,5) Approximately 10 percent of all patients first develop symptoms at 21 years of age or younger. (4) PNH develops without warning and can occur in men and women of all races, backgrounds and ages. PNH often goes unrecognized, with delays in diagnosis ranging from one to more than 10 years. (6) It is estimated that approximately one-third of patients with PNH do not survive more than five years from the time of diagnosis. (6) PNH has been identified more commonly among patients with disorders of the bone marrow, including aplastic anemia (AA) and myelodysplastic syndromes (MDS). (7,8,9) In patients with thrombosis of unknown origin, PNH may be an underlying cause. (3) More information on PNH is available at www.pnhsource.com.

About Soliris

Soliris has been approved by the U.S. Food and Drug Administration (March 2007), the European Commission (June 2007), Health Canada (January 2009) and Australia's Therapeutic Goods Administration (February 2009) as the first treatment for all patients with PNH, an ultra-rare, debilitating and life-threatening blood disorder defined by chronic hemolysis, or the destruction of red blood cells. Prior to these approvals, there were no therapies specifically available for the treatment of PNH. More information on Soliris is available at www.soliris.net.

Important Safety Information

Soliris is generally well tolerated. The most frequent adverse events observed in clinical studies were headache, nasopharyngitis (a runny nose), back pain and nausea. Treatment with Soliris should not alter anticoagulant management because the effect of withdrawal of anticoagulant therapy during Soliris treatment has not been established.

The U.S. product label for Soliris also includes a boxed warning: "Soliris increases the risk of meningococcal infections. Meningococcal infection may become rapidly life-threatening or fatal if not recognized and treated early. Vaccinate patients with a meningococcal vaccine at least two weeks prior to receiving the first dose of Soliris; revaccinate according to current medical guidelines for vaccine use. Monitor patients for early signs of meningococcal infections, evaluate immediately if infection is suspected, and treat with antibiotics if necessary." During clinical studies, two out of 196 vaccinated PNH patients treated with Soliris experienced a serious meningococcal infection. Prior to beginning Soliris therapy, all patients and their prescribing physicians are encouraged to enroll in the PNH Registry, which is part of a special risk-management program that involves initial and continuing education and long-term monitoring for detection of new safety findings.

About Alexion

Alexion Pharmaceuticals, Inc. is a biopharmaceutical company working to develop and deliver life-changing drug therapies for patients with serious and life-threatening medical conditions. Alexion is engaged in the discovery, development and commercialization of therapeutic products aimed at treating patients with a wide array of severe disease states, including hematologic and kidney diseases, transplant, cancer, and autoimmune disorders. Soliris is Alexion's first marketed product. Alexion is evaluating other potential indications for Soliris as well as other formulations of eculizumab for additional clinical indications, and is pursuing development of other antibody product candidates in early stages of development. This press release and further information about Alexion Pharmaceuticals, Inc. can be found at: www.alexionpharma.com.

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Safe Harbor Statement

This news release contains forward-looking statements, including statements related to potential health and medical benefits from Soliris (eculizumab). Forward-looking statements are subject to factors that may cause Alexion's results and plans to differ from those expected, including for example, decisions of regulatory authorities regarding marketing approval or material limitations on the marketing of Soliris, delays in arranging satisfactory manufacturing capability and establishing commercial infrastructure, delays in developing or adverse changes in commercial relationships, the possibility that results of published reports or clinical trials are not predictive of safety and efficacy results of Soliris in broader patient populations, the risk that clinical trials may not be completed successfully, the possibility that initial results of commercialization are not predictive of future rates of adoption of Soliris, the risk that third parties won't agree to license any necessary intellectual property to Alexion on reasonable terms or at all, the risk that third party payors will not reimburse for the use of Soliris at acceptable rates or at all, and a variety of other risks set forth from time to time in Alexion's filings with the Securities and Exchange Commission, including but not limited to the risks discussed in Alexion's Quarterly Report on Form 10-Q for the period ended September 30, 2009, and in Alexion's other filings with the Securities and Exchange Commission. Alexion does not intend to update any of these

forward-looking statements to reflect events or circumstances after the date hereof, except when a duty arises under law.

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