

Novartis Study Showed ACZ885 Provided Substantial Symptom Relief in 84% of Patients With the Most Serious Form of Childhood Arthritis

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- - ACZ885, which neutralizes key inflammatory driver interleukin-1 beta[1], provided significant symptom improvement vs. placebo in Phase III pivotal trial[2]
- - Systemic juvenile idiopathic arthritis is a rare, disabling and potentially fatal auto-inflammatory disease, with daily spiking fever and arthritic joint pain[3,4]
- - Second pivotal Phase III trial ongoing; worldwide regulatory submissions planned for 2012

EAST HANOVER, N.J., Sept. 16, 2011 /PRNewswire/ -- Novartis announced today positive results of the first pivotal Phase III trial of ACZ885 in patients with systemic juvenile idiopathic arthritis (SJIA), a rare and serious childhood auto-inflammatory disease[3]. The results, presented at the 2011 European Pediatric Rheumatology Congress in Bruges, Belgium, showed all primary and secondary endpoints of the study were met[2].

Most ACZ885 patients (83.7%) experienced at least a 30% improvement in symptoms vs. 9.8% for placebo ($p < 0.0001$) and a third of ACZ885 patients (32.6%) achieved a 100% improvement vs. 0% for placebo ($p = 0.0001$)[2]. ACZ885 is an investigational, fully human monoclonal antibody that neutralizes interleukin-1 beta (IL-1 beta), which is a key driver of inflammation in SJIA[1].

"SJIA is the most severe form of juvenile arthritis. Many of my patients suffer terribly from this disease, resulting in a critical need for new treatment options," said Daniel Lovell, M.D., one of the study investigators and Professor of Pediatrics at the Cincinnati Children's Hospital Medical Center. "This study showed ACZ885 effectively relieved the systemic and arthritic disease components evaluated in the trial, demonstrating a much-needed benefit for this patient population."

SJIA affects less than one child per 100,000 worldwide[5]. It is called 'systemic' because the inflammation affects the whole body, as well as most of the joints. The condition is characterized by potentially life-long and recurrent arthritis flares, which can involve skin rash, daily spiking fever, joint pain and swelling[3,4].

In this study, patients were evaluated according to the adapted American College of Rheumatology (ACR) Pediatric criteria, which includes absence of fever. The ACR criteria are regularly used to assess the success of treatments in SJIA.

"These results are a positive development for patients suffering from this very severe auto-inflammatory condition," said David Epstein, Head of the Pharmaceuticals Division of Novartis. "We are committed to investigate ACZ885 in a range of inflammatory diseases where interleukin-1 beta plays a key role and high unmet medical needs exist."

The results of a second pivotal Phase III trial, aimed at determining whether ACZ885 can extend the time to next flare and reduce or eliminate corticosteroid use, will be presented later this year. Worldwide regulatory submissions for ACZ885 in SJIA are planned for 2012.

The study was a Phase III, 4-week, randomized, double-blind, placebo-controlled study involving 84 patients between the ages of 2 and 19 years, with active SJIA[2]. Patients were treated with either a single subcutaneous (s.c.) dose of ACZ885 (4 mg/kg, up to 300 mg) or placebo[2].

The primary endpoint was the proportion of patients achieving the adapted ACR Pediatric 30 criteria, demonstrating a 30% improvement from baseline at Day 15 in at least three of the six variables[2]. The six variables were physician's assessment of disease activity, parent's or patient's assessment of overall well-being, functional ability, number of joints with active arthritis, number of joints with limitation of motion and C-reactive protein, a laboratory measure of inflammation[2]. Body temperature also was measured[2].

Secondary endpoints included the proportion of patients achieving the adapted ACR Pediatric 50, 70, 90 or 100 criteria, demonstrating a 50%, 70%, 90% or 100% improvement in at least three variables from baseline at Day 15 or 29[2].

ACZ885 was generally well tolerated. During the study, 55.8% of patients experienced adverse events (AEs), including infections, with ACZ885 vs. 39% with placebo[2]. Serious adverse events (SAEs), including infections, were reported for two patients for ACZ885 vs. two for placebo[2]. These did not lead to discontinuation and were resolved without complications[2].

About ACZ885

ACZ885 is a fully human monoclonal antibody that inhibits IL-1 beta, which is an important part of the body's immune system defenses[1]. Excessive production of IL-1 beta plays a major role in many inflammatory diseases, including SJIA[6]. ACZ885 works by neutralizing IL-1 beta for a sustained period of time, therefore inhibiting inflammation[1].

ACZ885 is currently approved in the US and other countries for a different disease state.

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