



PRESS RELEASE

AVONTEC announces the results of a successful proof of concept within a phase 2a study with its drug candidate AVT-02 UE ointment after topical treatment in patients with mild-to-moderate psoriasis

Martinsried/Munich (Germany), October 10th, 2008. AVONTEC GmbH, a privately held biopharmaceutical company dedicated to the development of novel therapies for chronic inflammatory diseases, announces today the results of a multicenter, randomized, double-blind, placebo-controlled, intra-individual-comparison phase 2a trial to evaluate the efficacy and safety of 2% AVT-02 UE ointment in the treatment of mild to moderate psoriasis vulgaris.

The phase IIa study enrolled 60 male outpatients with mild-to-moderate psoriasis vulgaris and compared 2% AVT-02 UE ointment with placebo as assessed by the Sum of Scores (SOS) of marker plaques during a four-week treatment.

For a subset of 28 subjects, immune histological biomarkers of skin biopsies were assessed at baseline and upon completion of treatment. The investigations were performed by Professor Jim Krueger, Rockefeller University, New York, in a double-blinded fashion. It included histology to determine epidermal thickness, immunohistochemistry and polymerase chain reaction (PCR) of disease-related and Signal Transducer and Activation of Transcription (STAT)-dependant biomarkers.

The excellent safety and tolerability of AVT-02 UE ointment was demonstrated in psoriatic patients and confirms previous results obtained in healthy volunteers and psoriatic patients.

The potential of AVT-02 UE ointment to inhibit STAT pathways in the psoriatic skin compartment was revealed. Treatment with AVT-02 UE (verum) showed a statistically significant effect versus placebo treatment (ointment base) when the response for the combined effect on histology and a marker specific of keratinocyte proliferation was considered. Relevant biomarkers specific for skin inflammation and activated STAT pathways were substantially reduced nicely matching the proposed role of Th17 and Th1 cells in psoriasis pathogenesis.

It was concluded that STAT-1 and STAT-3 were specifically hit, the drug candidate was biologically active and worth to maximize its clinical effect in a 3 month trial. In fact, the clinical response was less pronounced than one could expect from the profound effect on the biomarkers, which is "possibly explained by the short treatment period", said Prof. Jim Krueger.

Prof. Krueger further commented: "The molecular data I have seen with AVT-02 UE are extremely promising as STAT-1 and STAT-3 are known to be key factors driving different inflammatory features of Psoriasis. From the molecular medicine point of view STAT-1 and STAT-3 inhibition by AVT-02 UE is a novel molecular mechanism that targets key pathogenic cytokines associated with Th17 cells. New studies in Psoriasis show that Th17-associated cytokines eg. IL-17, IL-22, IL-23 and IL-12 are very interesting therapeutic targets for this disease. It is exciting to have a novel topical drug that targets these pathways."

Dr. Thomas Schulze, CEO of AVONTEC, commented: "AVONTEC has always put forward the STAT pathway inhibition as an exciting new concept for the treatment of chronic inflammatory disease of the skin compartment. Even in molecular terms, for the first time the concept was proven of value in



the clinic. We have reached statistical significance when combining biomarker and histology, which is expected to precede the clinical effect. The results of this study are clearly encouraging for our further clinical skin development program aiming at a longer treatment course.”

About AVT-02 UE

AVONTEC's drug candidate AVT-02 UE for inflammatory skin diseases contains a short, double-stranded oligonucleotide “decoy” that effectively inhibits STAT transcription factors shown to be strongly involved in the regulation of chronic inflammation. AVT-02 UE reduced inflammation in several pharmacological animal models and has already demonstrated statistically significant efficacy on relevant clinical endpoints in a pilot proof of concept Phase IIa study in psoriasis.

About psoriasis

Psoriasis is a chronic, meaning lifelong, inflammatory skin condition. There is currently no cure for psoriasis, which is fundamentally an overproduction in epidermal cells and is characterized by outbreaks of skin inflammation interspersed by varying periods of remission. Psoriasis can have a particularly negative effect on quality of life, affecting a sufferer's physical, social, and psychological functioning. Prevalence of psoriasis is the highest of the autoimmune diseases. Thus, there is an obvious medical need for novel, safe and efficacious therapeutic concepts in psoriasis.

About AVONTEC

AVONTEC is a biopharmaceutical company specialized in the development of novel nucleic acid based therapeutic treatments targeting transcription factors. Transcription factors are the master switches of gene regulation, able to turn genes on and off with exquisite sensitivity. The molecules developed at AVONTEC are designed to specifically attenuate abnormal transcription factor signaling, thereby normalizing the underlying cause of the disease. AVONTEC develops these decoy ODNs as therapeutic agents to treat chronic inflammation. AVONTEC's lead programs, AVT-01 in asthma and AVT-02 in inflammatory skin diseases, have been successfully advanced into Phase IIa clinical trials that are expected to be completed within 2008. In addition, there are several candidates in the pipeline based on AVONTEC's core decoy technology. AVONTEC operates based on a lean business model with a seasoned management team experienced in clinical development.

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