AVI BioPharma Provides Update on Clinical Trial for Treatment of Duchenne Muscular Dystrophy

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PORTLAND, Ore.--(BUSINESS WIRE)--Oct. 26, 2007--AVI BioPharma, Inc. (Nasdaq:AVII), today announced clinical development updates on AVI-4658, AVI's lead drug candidate for Duchenne muscular dystrophy (DMD) that is based on the company's proprietary ESPRIT (Exon Skipping Pre-RNA Interference Technology) drug platform. AVI-4658 is designed to benefit patients with mutations in the gene for dystrophin that can be neutralized by skipping exon 51.

Research teams at the Imperial College of London, in collaboration with the United Kingdom-based MDEX Consortium, have received approval from the Medicines and Healthcare products Regulatory Agency (MHRA) in the U.K. to begin screening patients for a proof-of-principle dose-escalating clinical trial using AVI-4658. The trial will include up to nine boys with DMD, each of whom will receive a single intramuscular administration of the drug. Two to three weeks following the injection, the muscle will be biopsied and examined for molecular evidence of improved dystrophin production.

The principal investigator for the U.K. study is professor Francesco Muntoni, Department of Paediatrics, Hammersmith Hospital Campus, Imperial College, London. The coordinating investigator of the project is professor Dominic Wells, M.A., VetMB, Ph.D., MRCVS, Department of Cellular and Molecular Neuroscience, Imperial College Faculty of Medicine. Imperial College will serve as the sponsor for the trial, with AVI BioPharma serving as its clinical development collaborator.

"We're pleased that this clinical trial in DMD is now able to move forward," said K. Michael Forrest, interim chief executive officer of AVI. "We're optimistic that our ESPRIT approach will be an effective tool in altering the disease mechanism for this and a variety of other diseases, helping the body bypass defective genetic information."

In addition to the U.K. single-dose IM study, AVI is actively pursuing the expansion of clinical development of AVI-4658 to a multicenter dose-ranging trial using systemic administration of the drug. This trial will be conducted in conjunction with the company's DMD cross-licensing and development partner, Ercole Biotech.

AVI recently announced it will receive a translational research grant of $2.45 million from Charley's Fund to support the selection and development of a lead molecule designed to skip exon 50 and restore production of functional dystrophin. This therapeutic approach is similar to that of AVI-4658, but targets patients with a different set of mutations.

About ESPRIT Technology

In normal genetic function, gene transcription produces a full-length pre-RNA that is then processed to a much shorter and functional messenger RNA. The mRNA is the template for creating a protein. During pre-RNA processing, packets of useful genetic information, called exons, are snipped out of the full-length RNA and spliced together to make the functional mRNA template. AVI's proprietary third-generation NEUGENE(R) chemistry can be used to target splice-joining sites in the pre-RNA, thus forcing the cell machinery to skip over targeted exons, providing altered mRNA, which in turn produces altered proteins. When the skipped exon contains a disease-causing mutation, the altered protein may restore function and potentially overcome the devastating clinical consequences of the mutation.

About Muscular Dystrophy

DMD is the most common fatal genetic disorder to affect children around the world. It is a devastating and incurable muscle-wasting disease associated with specific in-born errors in the gene that expresses dystrophin, a protein that plays an important structural role in muscle fibers. When dystrophin is missing or nonfunctional due to a mutation in the dystrophin gene, as it is in DMD, the result is membrane leakage and fiber damage, ultimately leading to degeneration and death of the muscle fiber. In two-thirds of DMD cases, the genetic mistake is hereditary, but one-third of cases arise spontaneously. There is no cure or effective treatment for DMD. Approximately one in 3,500 boys is born with DMD, and an estimated 15,000 to 20,000 children are afflicted in the United States alone.

About AVI BioPharma

AVI BioPharma develops therapeutic products for the treatment of life-threatening diseases using third-generation NEUGENE antisense drugs and ESPRIT exon skipping technology. AVI's ESPRIT technology is initially being applied to potential treatments for Duchenne muscular dystrophy. AVI's lead NEUGENE compound is designed to target cell proliferation disorders, including cardiovascular restenosis. In addition to targeting specific genes in the body, AVI's antiviral program uses NEUGENE antisense compounds to combat disease by targeting single-stranded RNA viruses, including dengue virus, Ebola virus and H5N1 avian influenza virus. More information about AVI is available on the company's Web site at www.avibio.com.

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: The statements that are not historical facts contained in this release are forward-looking statements that involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the results of preclinical and clinical testing, the effect of regulation by the FDA and other agencies, the impact of competitive products, product development, commercialization and technological difficulties, and other risks detailed in the company's Securities and Exchange Commission filings.

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