



AVI BioPharma Announces Refocused Clinical Development Strategy

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Emphasis on Near-Term NEUGENE Candidates and ESPRIT Applications

PORTLAND, Ore.--(BUSINESS WIRE)--Aug. 8, 2007--AVI BioPharma, Inc. (Nasdaq:AVI), today announced a strategic refocusing of its clinical pipeline and a reprioritization of its programs. AVI will focus on advancing NEUGENE(R) product candidates targeting cardiovascular and genetic diseases, optimizing compounds targeting infectious diseases, and testing new technologies that leverage the NEUGENE antisense platform, such as exon-skipping pre-RNA interference technology (ESPRIT).

"As announced in May, we have evaluated the many potential treatment applications made possible by the versatility of NEUGENE antisense and will focus our internal resources on those that offer what we believe to be the most viable near-term market opportunities," said K. Michael Forrest, interim chief executive officer of AVI. "We continue to be impressed with the progress of our partner, Global Therapeutics (a Cook Medical company), in developing NEUGENE compounds targeting restenosis. We also expect to advance our own clinical programs in the months ahead, including the ongoing NEUGENE trial in coronary artery bypass graft (CABG) surgery and a new trial using our ESPRIT technology in Duchenne muscular dystrophy (DMD)."

NEUGENE Program Update

Restenosis: Cook Medical

Global Therapeutics, which licensed NEUGENE product candidates from AVI in March 2006 for use in cardiovascular restenosis applications, recently completed a six-month follow-up analysis of the Phase II APPRAISAL clinical trial. APPRAISAL was designed to study the effects of AVI-4126, a NEUGENE compound delivered systemically via microparticles, for the prevention of cardiovascular restenosis when used in conjunction with the placement of one or more bare-metal stents. Global Therapeutics recently announced that data from the trial is expected to be presented at the Transcatheter Cardiovascular Therapeutics (TCT) conference in October 2007 and expressed its desire to rapidly commercialize NEUGENE products for the cardiology market, in a July 9, 2007, press release.

On July 25, 2007, Global Therapeutics also announced plans to conduct a clinical trial for the inhibition of restenosis in patients following angioplasty using a bare-metal cobalt chromium stent, a sub-selective drug delivery catheter, and AVI-5126 -- a combination of AVI-4126 and a delivery peptide. The study, which Global Therapeutics plans to begin in 2007 subject to regulatory approval, is designed to incorporate up to 20 investigational centers throughout Europe with the intent to support a CE-mark filing.

Coronary Artery Bypass Grafting (CABG)

A priority within AVI's cardiovascular program is the company's evaluation of AVI-5126 for use in CABG procedures. The CABG trial involves ex vivo (outside the body) application of AVI-5126 to the saphenous vein following harvest and before grafting into the coronary artery. The goal of this study is to determine if AVI-5126 reduces the incidence of graft re-blockage following the procedure.

No safety issues have been reported to date in this double-blind, placebo-controlled trial for which enrollment is ongoing. The trial is underway in the Ukraine, with additional sites soon to come on line in Poland. Enrollment of the first 110 patients for the 600-patient trial is expected by the first quarter of 2008.

Hepatitis C (HCV)

As part of the pipeline refocusing, AVI is discontinuing its planned dose-escalating HCV trial using AVI-4065. Instead, AVI researchers will apply recent innovations to HCV compounds with the goal of improving the delivery to targeted cells, increasing potency and lowering overall dosage requirements, potentially resulting in a more commercially viable product.

Other Infectious Diseases

Other infectious disease therapeutics remain an important facet of AVI's research pipeline, highlighted by the collaborative efforts ongoing at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). These preclinical efforts, the most advanced of which evaluate AVI compounds against the Ebola virus, provide an opportunity to demonstrate NEUGENE antisense in a high-containment setting targeting potential bioterror threats. Knowledge gained in this setting may be transferable to other viral and non-viral targets. In addition, AVI is continuing its H5N1 avian influenza program for the development of an agent targeting this potential pandemic disease.

ESPRIT Program Update

ESPRIT technology holds potential as a potent tool for altering many disease mechanisms. While conventional antisense blocks protein production, ESPRIT compounds induce cellular machinery to skip an exon. An exon is a packet of genetic information used in part to build a protein. In some diseases, a genetic mutation results in one or more exons being deleted. When this occurs, a needed protein may be altered or not produced at all.

The ESPRIT mechanism provides a fine-tuned approach to interfering with this disease process. Based upon favorable preclinical results in Duchenne muscular dystrophy (DMD) animal models, AVI has selected DMD as the first indication to pursue using ESPRIT.

Duchenne Muscular Dystrophy

DMD is a progressively debilitating and fatal disease caused by one or more mutations in the gene that codes for dystrophin, a protein that is crucial for muscle function. Most of the mutations cause subsequent exons to be misread by the cell machinery so that no functional dystrophin is produced. AVI's objective is to use the ESPRIT therapeutic AVI-4658 to skip exon 51, which would put the subsequent protein back in the correct reading frame, creating a shortened but functional version of dystrophin.

Research teams at the Imperial College London, U.K., are entering into a proof-of-principle, controlled, dose-escalating trial using AVI-4658. In the trial, up to nine boys with DMD will receive a single intramuscular administration of the drug. Two to three weeks following injection, the muscle will be biopsied and examined for molecular evidence of dystrophin production.

In parallel, AVI is also aggressively pursuing expansion of a clinical development program to include a multicenter, dose-ranging trial for systemic administration of AVI-4658 for the treatment of DMD. This product will be developed in conjunction with its cross-licensing and development partner, Ercole Biotech. AVI intends to pursue additional opportunities with the ESPRIT program.

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 lead NEUGENE antisense 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. AVI's NEUGENE-based ESPRIT technology is initially being applied to potential treatments for Duchenne muscular dystrophy. More information about AVI is available on the company's Web site at <http://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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