AVI BioPharma Announces Acquisition of Ercole Biotech

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Deal Consolidates AVI's Position in Directed Alternative RNA Splicing Therapeutics

Conference Call to Begin Today at 11:00 a.m. Eastern Time

For Immediate Release

PORTLAND, Ore., and RESEARCH TRIANGLE PARK, N.C. — March 13, 2008 — AVI BioPharma, Inc. (Nasdaq: AVII) and privately held Ercole Biotech, Inc. today announced the execution of a definitive merger agreement pursuant to which AVI will acquire Ercole, a pioneer in developing drugs to directed alternative RNA splicing. AVI and Ercole have collaborated since December 2006 to develop drug candidates including AVI–4658, which is in clinical testing in the United Kingdom for treatment of Duchenne muscular dystrophy (DMD).

Under the terms of the agreement, AVI will issue up to $7.5 million in AVI common stock valued at $1.3161 per share in exchange for all outstanding shares of Ercole stock not already owned by AVI. In addition, AVI will assume responsibility for up to $1.5 million in liabilities of Ercole, to be paid by a combination of cash and AVI stock. Liabilities in excess of $1.5 million will be deducted from the $7.5 million in common stock. The transaction is expected to close by March 21.

"The acquisition of Ercole is a major step toward AVI's goal of becoming the preeminent developer of drugs that modify RNA splicing," said Leslie Hudson, Ph.D., Chief Executive Officer of AVI. "This therapeutic approach takes advantage of a fundamentally important mechanism – alternative RNA splicing — for therapeutic intervention. We believe this intervention can correct genetic mutations in situ or produce clinically desirable variants of relevant therapeutic proteins in vivo. Our acquisition of Ercole brings us significant scientific expertise and fundamental patents to help us reach this goal."

AVI refers to this novel therapeutic approach as ESPRIT (Exon Skipping Pre–RNA Interference Technology). AVI believes that its morpholino chemistry is particularly useful in modifying splicing of RNA because molecules based on this chemistry do not appear to degrade targeted RNA and do not appear to lead to down–regulation of the target gene. In addition, AVI has proprietary technology to direct delivery of drugs preferentially to specific organs in the body.

"We are excited about joining forces with AVI and combining the complementary strengths of the two companies to develop splice–directing drugs," said Ryszard Kole, Ph.D., President and founder of Ercole Biotech. "Recent discoveries have shown how prevalent alternative splicing is in nature, providing a multitude of promising drug targets. We are committed to exploiting this mechanism for practical outcomes, which can be used to benefit patients with a variety of diseases."

About ESPRIT

In normal genetic function, gene transcription produces a full–length pre–mRNA molecule that is processed to a much shorter and functional messenger RNA (mRNA). This mRNA is the template for creating a protein. During pre–mRNA 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. Technology developed by AVI and Ercole allows the targeting of splicing elements in pre–mRNA to achieve removal or retention of designated exons in the alternatively spliced mRNA. As a result, the desired protein is translated from the mRNA and the production of the undesirable one is prevented.

The Importance of RNA Splicing

Through the Human Genome Project and subsequent studies, the way in which the body controls cellular processes has become clearer. Rather than just turning gene expression on and off, we now understand that cells create enormous diversity in how proteins are constructed – diversity that stems from variances in how mRNA is spliced. Alternative splicing explains how the 26,000 genes in the human genome result in 150,000 different proteins.

In some cases, alternative forms of the same protein — made from splicing together different combination of exons — may have completely opposing functions from one another. One version of a protein may contribute to disease pathology, whereas tipping the balance to a different splice variant may provide therapeutic benefit. In other cases, such as Duchene muscular dystrophy (DMD), gene mutations impair the cell's ability to correctly splice RNA that codes for a critical protein. In this situation, it appears that creating an alternatively spliced form can restore protein function. The ability to direct mRNA splicing is a powerful platform for creating new drugs with the potential for treating a wide range of genetic and acquired diseases.

About Duchenne Muscular Dystrophy

Duchenne muscular dystrophy is an ultimately fatal disorder that is characterized by rapidly progressing muscle weakness and atrophy of muscle tissue starting in the legs and pelvis and later affecting other sites in the body, including the diaphragm and heart. DMD is the most common form of muscular dystrophy, affecting one in 3,500 young males. An estimated 17,000 boys and young men are afflicted with DMD in the U.S. alone. Women can be carriers of DMD but usually exhibit no symptoms. DMD is caused by mutations in the dystrophin gene, which encodes a protein that is essential to the structure and function of muscle cells. There is no known effective treatment for DMD, and most patients with DMD die of respiratory and/or heart failure.

Conference Call

AVI BioPharma has scheduled an investor conference call regarding this announcement to be held today, March 13, 2008 beginning at 11:00 a.m.

Eastern time (8:00 a.m. Pacific time). Individuals interested in listening to the conference call may do so by dialing (888) 803–8271 within the U.S. and Canada, or (706) 634–2467 for international callers.

A telephone replay of the conference call will be available for 48 hours beginning within two hours of the conclusion of the call, by dialing (800) 642–1687 for domestic callers, or (706) 645–9291 for international callers, and entering reservation number 39212730. The live conference call also will be available to private investors via the Internet at www.avibio.com. A replay of the call will be available on the company's Web site for 14 days following the completion of the call. A slide presentation will accompany conference call commentary and will be available 30 minutes before the call.

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 NeuGene compounds are also designed to treat cardiovascular restenosis in stent and coronary artery bypass graft (CABG) procedures. 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 Marburg Musoke and Ebola Zaire viruses. More information about AVI is available at www.avibio.com.