



## AVI BioPharma Successful Ebola Study Results Highlighted in Nature Reviews Drug Discovery

3/7/06

Additional Efficacy Results Published in the Journal Antimicrobial Agents and Chemotherapy

PORTLAND, Ore.--(BUSINESS WIRE)--March 7, 2006--AVI BioPharma, Inc. (Nasdaq:AVII), today announced that the February issue of Nature Reviews Drug Discovery (Nature Reviews 5:103-106, 2006) chose to highlight the company's recent Ebola study results. Referring to a "new generation of antisense technology," the Nature Reviews Drug Discovery article noted the positive "drug-like properties" of AVI's NEUGENE(R) technology and its safety profile in human clinical trials.

Other key points noted in the review include the fact that AVI's NEUGENE antisense drugs can be developed rapidly and are easily produced in large quantities. Recent studies have produced positive results both in cell culture and in small animals, including the recent Public Library of Science (PLoS) Pathogens study that demonstrated 75 percent protection in nonhuman primates against lethal challenge with the Ebola virus. The review goes on to speculate that these results may usher in the development of a whole new strategy for combating a wide range of viral infections.

The Nature Reviews Drug Discovery article was based on a paper published January 2006 in the peer-reviewed online journal PLoS Pathogens. The paper, "Gene-Specific Countermeasures Against Ebola Virus Based on Antisense Phosphorodiamidate Morpholino Oligomers," can be accessed on the PLoS Pathogens Web site at <http://pathogens.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.ppat.0020001>. (Due to its length, this URL may need to be copied/pasted into your Internet browser's address field. Remove the extra space if one exists.)

"We are pleased that Nature Reviews Drug Discovery highlighted our research," said Denis R Burger, chief executive officer of AVI. "Reports such as this one show the robust nature of our NEUGENE technology in treating a range of viral infections."

AVI is currently enrolling patients with chronic hepatitis C infection in a Phase I/II clinical trial in the United States. The company has also reported early success in studies using a NEUGENE drug targeting the H5N1 avian influenza virus, which some health experts believe may spark a world influenza pandemic.

### Additional Research Demonstrating Inhibition of Ebola Virus

An additional report, "VP35 Knockdown Inhibits Ebola Virus Amplification and Protects Against Lethal Infection in Mice," appears this month in the peer-reviewed journal Antimicrobial Agents and Chemotherapy (2006, vol.10, no.3, page 984-993). Data included in the paper demonstrate that AVI's proprietary NEUGENE drug targeting a key Ebola gene provided complete protection in mice when administered either before or after an otherwise lethal infection with Ebola virus.

The research described in the latest study was carried out in collaboration with the Department of Virology at Philipps-University in Marburg, Germany, and the U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID).

"Today's publication of study results showing inhibition of the Ebola virus using our technology provides additional confirmation for our successful antiviral program," said Patrick L. Iversen, Ph.D., senior vice president of research and development at AVI. "In tandem with our other successful collaborations, we believe we are on the verge of developing a whole new class of gene-specific drugs that can be quickly produced in large quantities to respond rapidly to known, emerging and even genetically engineered bioterrorism threats."

Earlier this year, AVI announced that the final version of the 2006 Department of Defense Appropriations Act included an allocation of \$11 million for AVI's ongoing defense-related programs. This grant more than doubled the allocation AVI received in 2005.

In partnership with a variety of government agencies, including the Centers for Disease Control and Prevention and the Department of Defense, AVI's NEUGENE technology is being evaluated as a potential therapeutic measure to treat infection by Ebola, Marburg and dengue viruses, as well as to develop countermeasures against anthrax exposure and antidotes for ricin toxin.

NEUGENE antisense compounds are synthetic polymers designed to mirror a critical portion of a disease-causing organism's genetic code and bind to specific portions of the target genetic sequence. Like a key in a lock, NEUGENE compounds are designed to match up perfectly with a specific gene or viral sequence, blocking the function of the target gene or virus.

### About Ebola Zaire

Ebola hemorrhagic fever is a severe, often-fatal disease in humans and nonhuman primates (monkeys, gorillas and chimpanzees) that has appeared sporadically since its initial recognition in 1976. The disease is caused by infection with Ebola virus, named after a river in the Democratic Republic of Congo (formerly Zaire) in Africa, where it was first recognized. Ebola virus and Marburg virus are the only two members of a family of RNA viruses called the Filoviridae.

Ebola Zaire is a National Institute of Allergy and Infectious Disease (NIAID) priority A pathogen and a bioterrorism suspect agent of interest to the Department of Defense and Project BioShield. There are currently no approved treatments for Ebola infection.

### About AVI BioPharma

AVI BioPharma develops therapeutic products for the treatment of life-threatening diseases using third-generation NEUGENE antisense drugs. AVI's lead NEUGENE antisense compound is designed to target cell proliferation disorders, including cardiovascular restenosis, cancer and polycystic

kidney disease. 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 West Nile virus, hepatitis C virus, dengue virus, Ebola virus and influenza A virus. AVI has introduced a NEUGENE-based exon-skipping technology called ESPRIT therapy. 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.

CONTACT: AVI BioPharma, Inc.  
Michael Hubbard, 503-227-0554  
hubbard@avibio.com  
or  
Lippert/Heilshorn & Associates Inc. (Investor Contacts)  
Bruce Voss, 310-691-7100  
bvoss@lhai.com  
or  
Jody Cain, 310-691-7100  
jcain@lhai.com  
or  
Waggener Edstrom Worldwide (Press Contacts)  
Bioscience and Healthcare Practice  
Jenny Moede, 503-443-7000  
jmoede@waggeneredstrom.com  
or  
Andie Long, 202-326-0791  
andreal@waggeneredstrom.com

SOURCE: AVI BioPharma, Inc.