# AVI BioPharma Receives DoD Contracts for Bioterrorism Response Therapies

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Funding Will Advance Antisense Programs Targeting Ebola and

Marburg Viruses, Anthrax, and Ricin Exposure

PORTLAND, Ore.--(BUSINESS WIRE)--May 7, 2007--AVI BioPharma, Inc. (Nasdaq: AVII), today announced the receipt of three signed contracts valued at $7.1 million from the Department of Defense for the development of therapeutic drugs against potential bioterrorism agents, using AVI's NEUGENE(R) technology. The contracts, including $2.66 million to develop antisense agents to treat Ebola virus infections, $2.66 million to treat Marburg virus infections, and $1.78 million to develop countermeasures for exposure to Bacillus anthracis (anthrax) and ricin toxin, were part of a previously announced budget allocation.

"We are extremely pleased to receive these contracts after the extensive due diligence and peer review process undertaken by the government following the initial FY06 funding allocation. We anticipate commencing research immediately with our collaborators at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)," said Alan P. Timmins, president and COO of AVI. "Previous studies have shown that NEUGENE antisense therapeutics may be a viable approach to treating victims of these deadly infections and toxins."

The contracts are for work that AVI will undertake on three of the four programs included in a budget allocation as part of the 2006 defense appropriations act, as announced by the company in January 2006. That allocation totaled $11 million, of which the company expects to receive up to $9.8 million, net of government administrative costs. The fourth program, targeting dengue virus infections, is in the final stages of discussion. Payments under the first three contracts are expected to be received over approximately the next year as research is completed, and invoiced to the government.

NEUGENE antisense compounds are synthetic polymers that mirror a critical portion of a disease-causing organism's genetic code, which 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 pathogen sequence, blocking the function of the target gene or pathogen.

About Ebola Zaire and Marburg Viruses

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 the 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.

Researchers have hypothesized that the first patient becomes infected through contact with an infected animal. After the first patient in an outbreak setting is infected, the virus can be transmitted in several ways. People can be exposed to Ebola virus from direct contact with the blood and/or secretions of an infected person.

The disease 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.

Marburg virus was first recognized in 1967, when outbreaks of hemorrhagic fever occurred simultaneously in laboratories in Marburg and Frankfurt, Germany, and in what is now Serbia. Marburg hemorrhagic fever is a rare, severe type of hemorrhagic fever that affects both humans and nonhuman primates. It is caused by a genetically unique animal-borne RNA virus, whose recognition led to the creation of this virus family.

The most recent outbreak of Marburg virus started in October 2004 in Angola. According to the World Health Organization (WHO), as of Aug. 23, 2005, the Ministry of Health (MOH) of Angola had reported a total of 374 cases of Marburg hemorrhagic fever with 329 fatalities. The toll far exceeds the previous worst outbreak recorded in Angola's neighbor, the Democratic Republic of Congo, in 1998, when 123 died.

About Anthrax

Anthrax is an acute infectious disease caused by the spore-forming bacterium Bacillus anthracis.

Bacillus anthracis is an encapsulated gram-positive, nonmotile, aerobic, spore-forming bacterial rod. Anthrax is most common in agricultural regions, where it occurs in animals. When anthrax affects humans, it is usually due to an occupational exposure to infected animals or their products.

Three virulence factors account for the majority of the clinical manifestations of B. anthracis: edema toxin, lethal toxin and an antiphagocytic capsular antigen. The lethal toxin is the most important in pathogenesis and is primarily responsible for the primary clinical manifestations of hemorrhage, edema and necrosis.

In terms of bioterrorism, inhalation anthrax is the greatest concern. Case-fatality rates for inhalation anthrax are high, even with appropriate antibiotics and supportive care. Among the 18 cases of inhalation anthrax in the United States during the 20th century, the overall case fatality was greater than 75 percent. Following the bioterrorist attack in fall 2001, the case-fatality rate among patients with inhalation disease (all of whom received antibiotic therapy) was 45 percent (five of 11).

About Ricin Toxin

Ricin, a plant toxin from the seeds of the castor bean, is one of the most poisonous naturally occurring substances known and is poisonous to people, animals and insects.

Ricin inhibits protein synthesis by specifically and irreversibly inactivating ribosomes. These ribosome-inactivating proteins are typically monomers. However, in order to bind to the cell surface and enter the cell to reach the ribosomes, ricin requires a second monomer. Ricin, therefore, is a heterodimeric protein where the ribosome-inactivating enzyme, known as the A chain, is linked to the cell-surface-binding peptide, called the B chain. The ricin A chain of the heterodimer is the enzyme that binds and inactivates ribosomal RNA. Just a single ricin molecule that enters the cell can inactivate over 1,500 ribosomes per minute and kill the cell.

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 West Nile virus, hepatitis C virus, dengue virus, Ebola virus and influenza A virus. AVI's NEUGENE-based ESPRIT technology will initially be 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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