AVI BioPharma and Naval Medical Research Center Successfully Complete Simultaneous Rapid-Response Exercises Against Bacterial and Viral Threats in 18 Days

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PMO-Based Platform Chemistries Used by AVI to Design and Manufacture Novel RNA-Based Drug Candidates Against Both Undisclosed Bacterial and Viral Targets

BOTHELL, WA, Jun 16, 2011 (MARKETWIRE via COMTEX) -- AVI BioPharma, Inc. (NASDAQ: AVII), a developer of RNA-based therapeutics, and the Naval Medical Research Center (NMRC) in Silver Spring, MD, today announced the successful completion of a formal rapid-response exercise conducted by the Joint Project Manager Transformational Medical Technologies (JPM-TMT) of the Defense Threat Reduction Agency (DTRA). The exercise involved two undisclosed bacterial and viral threats and exhibited AVI's continued success in the development of a credible rapid response capability utilizing its RNA-based therapeutic technologies against pathogenic threats. Previously, AVI successfully completed its first formal rapid-response exercise against the pandemic H1N1 influenza virus (swine flu) in 2009 and one against the dengue virus in 2010.

The key outcome of this newest rapid response exercise was AVI's simultaneous conception, design and manufacture in 18 days of two novel RNA-based drug candidates, one against a gram negative bacterial target and the second against a viral target. The drug candidates use AVI's proprietary phosphorodiamidate morpholino oligomer (PMO) technologies, including PMOplus(TM), a positively charged version of its intrinsically charge-neutral PMO chemistry. This exercise is part of JPM-TMT 's and AVI's ongoing research efforts to develop and refine an efficient rapid-response capacity that includes the capability of responding to a real-world emerging infectious disease or biological threat by rapidly identifying the threat, designing and producing therapeutic candidates against the threat, and then evaluating the preclinical efficacy of therapeutic candidates.

"By addressing two pathogenic threats simultaneously, including for the first time a bacterial threat, this exercise further tested AVI's demonstrated ability to rapidly design therapeutics against emerging viral and bacterial threats using our PMO-based platform chemistries, and builds on our other successful rapid response exercises," commented Chris Garabedian, AVI's CEO and president. "We look forward to supporting JPM-TMT and DTRA to refine the rapid-response capability and also to potentially broaden our collaborative efforts with NMRC through future contracts or a Cooperative Research and Development Agreement (CRADA) for the development of RNA-based therapeutics for the treatment of infectious diseases, including both viral and bacterial threats."

About the Defense Threat Reduction Agency

The Defense Threat Reduction Agency (DTRA) was founded in 1998 to integrate and focus the capabilities of the Department of Defense (DoD) that address the threat by weapons of mass destruction (WMD). DTRA's mission is to safeguard the United States and its allies from chemical, biological, radiological, nuclear, and high-yield explosive WMDs by providing capabilities to reduce, eliminate, and counter the threat and mitigate its effects. DTRA combines DoD resources, expertise, and capabilities to ensure the United States remains ready and able to address present and future WMD threats. For more information on DTRA, visit www.dtra.mil.

About Transformational Medical Technologies

Transformational Medical Technologies (TMT) was created by the DoD to protect the Warfighter from emerging and genetically engineered biological threats by discovering and developing a wide range of medical countermeasures through enhanced medical research, development, and test and evaluation programs. The TMT Program office is matrixed from the Joint Science and Technology Office - DTRA and Joint Program Executive Office - Chemical and Biological Defense with oversight from the Office of the Secretary of Defense. For more information on TMT, visit www.tmti-cbdefense.org.

About AVI BioPharma

AVI BioPharma is focused on the discovery and development of novel RNA-based therapeutics for rare and infectious diseases, as well as other select disease targets. Applying pioneering technologies developed and optimized by AVI, the Company is able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. Unlike other RNA-based approaches, AVI's technologies can be used to directly target both messenger RNA (mRNA) and precursor messenger RNA

(pre-mRNA) to either down-regulate (inhibit) or up-regulate (promote) the expression of targeted genes or proteins. By leveraging a highly differentiated RNA-based technology platform, AVI has built a pipeline of potentially transformative therapeutic agents, including eteplirsen, which is in clinical development for the treatment of Duchenne muscular dystrophy, and multiple drug candidates that are in clinical development for the treatment of infectious diseases. For more information, visit www.avibio.com.

Forward-Looking Statements and Information

This press release contains statements that are forward-looking, including statements about AVI's partnerships with JPM-TMT, DTRA and NMRC, AVI's PMO-based platform chemistries and their ability to protect against emerging viral and bacterial threats, and the efficacy, potency and utility of AVI's product candidates in the treatment of rare and infectious diseases. These forward-looking statements involve risks and uncertainties, many of which are beyond AVI's control. Known risk factors include, among others: clinical trials may not demonstrate safety and efficacy of any of AVI's drug candidates; any of AVI's drug candidates may fail in development, may not receive required regulatory approvals, or be delayed to a point where they do not become commercially viable; and the U.S. government could fail to fund, or terminate, any of AVI's government programs. Any of the foregoing risks could materially and adversely affect AVI's business, results of operations and the trading price of its common stock. For a detailed description of risks and uncertainties AVI faces, you are encouraged to review the official corporate documents filed with filed with the Securities and Exchange Commission. AVI does not undertake any obligation to publicly update its forward-looking statements based on events or circumstances after the date hereof.

"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, product development, commercialization and technological difficulties, and other risks detailed in the Company's Securities and Exchange Commission filings.

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