AVI BioPharma Issued Broad Composition of Matter Patent for PMOplus(TM) Chemistry Platform

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Patent Claims Provide Protection for Next Generation PMO Chemistry, Extending AVI Leadership

BOTHELL, WA, May 17, 2011 (MARKETWIRE via COMTEX) -- AVI BioPharma, Inc. (NASDAQ: AVII), a developer of RNA-based therapeutics, announced today that the United States Patent and Trademark Office issued AVI a composition of matter patent for its advanced generation of phosphorodiamidate morpholino oligonucleotide (PMO) chemistry called PMOplus (TM). The patent, titled "Oligonucleotide Analogs Having Cationic Intersubunit Linkages" (No. 7943762), issued with broad composition of matter claims covering AVI's PMOplus chemistry. The PMOplus chemical backbone builds on AVI's exclusive charge-neutral PMO technology with the selective addition of positive charges to enhance potency and broaden the utility of AVI's PMO chemistry platform in a range of applications.

"The issuance of this patent is a key component to our ongoing efforts to advance a range of programs utilizing our PMOplus technology, including two recently initiated Phase 1 trials for our Ebola and Marburg programs that have garnered almost $300 million in potential funding support from the U.S. Department of Defense," said Chris Garabedian, AVI's CEO and president. "More broadly, the issuance of this patent represents another step in securing protection for the future development of our next generation morpholino chemistries, allowing us to confidently pursue new drug candidates for both internal development and development with potential collaborators and partners."

AVI recently initiated Phase 1 clinical investigations of two infectious disease drug candidates based on the PMOplus(TM) chemistry, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. AVI plans to advance a third drug candidate also based on the PMOplus(TM) chemistry, AVI-7100, into the clinic this quarter for the H1N1 influenza virus. AVI-6002 and AVI-6003 have demonstrated up to 80% and 100% survival rates in preclinical studies treating non-human primates infected with the Ebola and Marburg viruses, respectively. AVI-7100 has demonstrated antiviral properties in preclinical studies of the H1N1 influenza virus. These programs have received support from the U.S. Department of Defense.

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 (previously known as AVI-4658), which is in clinical development for the treatment of Duchenne muscular dystrophy.

Forward-Looking Statements and Information

This press release contains statements that are forward-looking, including statements about the development of AVI's product candidates; the efficacy, potency and utility of AVI's product candidates in the treatment of rare and infectious diseases; the potential for AVI's technology to treat a broad number of human diseases; AVI's expectations regarding future funding from the U.S. government; the extent of protection that AVI's patents provide to its technologies and programs; AVI's expectations regarding partnering opportunities; and AVI's plans to initiate a Phase 1 clinical trial in AVI-7100 in the second quarter of 2011. 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 and/or AVI's antisense-based technology platform; 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; development of any of AVI's drug candidates may not result in funding from the U.S. government in the anticipated amounts or on a timely basis, if at all; and patents that have been issued may not afford meaningful protection for AVI's technology and products. Any of the foregoing risks could materially and adversely affect AVI's business, results of operations and the trading price of AVI's common stock. For a detailed description of risks and uncertainties AVI faces, you are encouraged to review the official corporate documents 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, 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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