UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): September 30, 2009

AVI BioPharma, Inc.

(Exact name of registrant as specified in its charter)

Oregon (State or other jurisdiction of incorporation)

001-14895 (Commission File Number)

93-0797222 (I.R.S. Employer Identification No.)

3450 Monte Villa Parkway, Suite 101 Bothell, WA 98021(Address of principal executive offices)

(425) 354-5038

Registrant's telephone number, including area code

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01. Entry into a Material Definitive Agreement.

On September 30, 2009, AVI BioPharma, Inc. (the "Company") entered into a contract amendment to its contract HDTRA 1-07-C-0010 with the U.S. Defense Threat Reduction Agency ("DTRA") to support additional tasks for the continued development of DTRA's programs with the Transformational Medical Technologies Initiative ("TMTI"). Under this amendment, DTRA has expanded the scope and value of the contract to include the funding of additional research and development relating to the Company's Junín virus drug candidate. There is an additional cost modification of \$11.5 million, thus increasing the contract amount to \$45.4 million.

Item 9.01. Financial Statements and Exhibits.

The following exhibit is being furnished (not filed) herewith:

99.1 Press release, dated October 5, 2009, entitled "AVI BioPharma Receives Expanded Contract from U.S. Department of Defense to Develop its Drug Candidate for the Treatment of Junín Virus Infection"

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bothell, State of Washington, on October 5, 2009.

By: /s/ Leslie Hudson, Ph.D.

Leslie Hudson, Ph.D. President and Chief Executive Officer (Principal Operating Officer)

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EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release, dated October 5, 2009, entitled "AVI BioPharma Receives Expanded Contract from U.S. Department of Defense to Develop its Drug Candidate for the Treatment of Junín Virus Infection"
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AVI Press and Investor Contact: Julie Rathbun investorrelations@avibio.com (541) 224-2575

AVI BioPharma Receives Expanded Contract from U.S. Department of Defense to Develop its Drug Candidate for the Treatment of Junín Virus Infection

\$11.5 Million New Funding Brings Total Award to \$45 Million

BOTHELL, WA — **October 5, 2009** — AVI BioPharma, Inc. (NASDAQ: AVII), a developer of RNA-based drugs, announced today that it has received expanded contract funding of approximately \$11.5 million from the Defense Threat Reduction Agency's (DTRA) Transformational Medical Technologies Initiative (TMTI) to support development of the Investigational New Drug (IND) data package for its candidate drug, AVI-7012, to treat Junín virus infection. To date, the United States Department of Defense (DoD) has contracted with AVI for work potentially worth up to \$45 million for the development of AVI's RNA-based drug candidates to treat Ebola, Marburg and Junín virus infections (AVI-6002, AVI-6003 and AVI-7012, respectively).

"AVI has recently been able to confirm the impressive and dose-related survival of drug-treated non-human primates in large dose titration studies for Ebola and Marburg virus infections, which were carried out in collaboration with the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)," said Dr. Patrick Iverson, Senior Vice President for Strategic Alliances at AVI. "Importantly, these studies allowed us to unequivocally demonstrate the sequence-specific nature of the protection afforded by our drug candidates."

AVI has received a 'safe to proceed' allowance from the United States Food and Drug Administration (FDA) for IND applications for clinical safety trials of its two lead products to treat Ebola and Marburg virus infections. These INDs represent the first TMTI supported drug candidates targeting bioterrorism agents to receive FDA IND allowance.

AVI plans to conduct the animal efficacy trials for potential approval of its drugs under the Animal Rule as part of its continued collaboration with USAMRIID. The majority of the collaborative research effort between AVI and USAMRIID has been supported by a research contract from the DoD's TMTI with the goal of developing a new antiviral platform targeting hemorrhagic fever viruses. The current funding is a second amendment and expansion of an original contract from DTRA, which was awarded in November 2006 for \$28 million and has been fully authorized. The contract for the first amendment was issued in May 2009 when an additional \$5.9 million was authorized to support continued development of AVI's RNA-based drugs AVI-6002 and AVI-6003 to treat Ebola and Marburg virus infections, respectively.

"The expansion of the contract for our therapeutic programs in Junín, Ebola and Marburg viruses reflects the DoD's continued support of our bio-defense program, which is developing a series of RNA-based anti-viral drugs," said David Boyle, Chief Financial Officer of AVI. "AVI's ability

to virtually double the value of the original contract is a powerful illustration of the performance of our drug candidates to date."

AVI-6002, AVI-6003 and AVI-7012 are novel analogs based on AVI's PMO antisense chemistry in which anti—viral potency is enhanced by the addition of positively—charged components to the morpholino oligomer backbone.

About DTRA & TMTI

DTRA was founded in 1998 to integrate and focus the capabilities of the DoD that combat the weapons of mass destruction (WMD) threat. The mission of the DTRA is to safeguard America and its allies from WMD (e.g. chemical, biological, radiological, nuclear, and high yield explosives) by providing capabilities to reduce, eliminate, and counter the threat, and thereby mitigate its effects. Under DTRA, DoD resources, expertise and capabilities are combined to ensure the United States remains ready and able to address the present and future WMD threats.

The TMTI was created by the DoD to protect the Warfighter from emerging and genetically altered biological threats by discovering and developing a wide range of medical countermeasures through enhanced medical research, development, test and evaluation programs. The TMTI 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 TMTI, visit http://www.tmti-cbdefense.org.

About USAMRIID

USAMRIID, located at Fort Detrick, Maryland, is the lead medical research laboratory for the U.S. DoD Biological Defense Research Program. The Institute conducts basic and applied research on biological threats resulting in medical solutions (such as vaccines, drugs and diagnostics) to protect the Warfighter. While USAMRIID's primary mission is focused on the military, its research often has applications that benefit society as a whole. USAMRIID is a subordinate laboratory of the U.S. Army Medical Research and Materiel Command. For more information, visit www.usamriid.army.mil.

About AVI BioPharma

AVI BioPharma is focused on the discovery and development of RNA—based drugs utilizing proprietary derivatives of its antisense chemistry (morpholino-modified phosphorodiamidate oligomers or PMOs) that can be applied to a wide range of diseases and genetic disorders through several distinct mechanisms of action. Unlike other RNA-based therapeutic approaches, AVI's antisense technology has been used to directly target both messenger RNA (mRNA) and its precursor (pre-mRNA), allowing for both up- and down-regulation of targeted genes and proteins. AVI's RNA—based drug programs are being evaluated for the treatment of Duchenne muscular dystrophy as well as for the treatment of cardiovascular restenosis through our partner Global Therapeutics, a Cook Group Company. AVI's antiviral programs have demonstrated promising outcomes in Ebola Zaire and Marburg Musoke virus infections and may prove

 $applicable \ to \ other \ viral \ targets \ such \ as \ the \ H1N1 \ strain \ of \ influenza, HCV \ or \ Dengue \ viruses. \ For \ more \ information, \ visit \ www.avibio.com.$