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): March 25, 2010

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 March 25, 2010, AVI BioPharma, Inc. ("AVI" or the "Company") entered into an amendment to its contract with the U.S. Defense Threat Reduction Agency ("DTRA") to develop, in cooperation with the Transformational Medical Technologies Initiative ("TMTI") of the U.S. Department of Defense, one or more of AVI's nucleotide-based drug candidates targeting the pandemic H1N1 influenza virus (swine flu) and demonstrate efficacy in an appropriate preclinical model. The material terms of the original contract between DTRA and the Company were previously disclosed by the Company in the Company's Current Report on Form 8-K filed with the U.S. Securities and Exchange Commission on May 11, 2009.

Under the contract entered into by the Company in May 2009, DTRA agreed to pay up to \$5.1 million to the Company for the work to be performed by the Company, which amount was ultimately finalized at \$4.1 million. The amendment entered into on March 25, 2010 provides up to \$4.0 million in additional DTRA funding to support continued preclinical development of AVI's lead influenza drug candidate, AVI-7367, against H1N1 as well as its expanded preclinical evaluation against H5N1 (avian flu) and drug resistant H1N1 and H3N2 flu strains. AVI's lead influenza drug candidate utilizes AVI's proprietary PMO*plus*TM chemistry.

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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 March 25, 2010.

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

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