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): June 4, 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)

dutiess 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 June 4, 2010, AVI BioPharma, Inc. (the "Company"), entered into a new contract with the U.S. Defense Threat Reduction Agency ("DTRA") to advance the development of AVI-7100, which was previously designated AVI-7367 and which has been renumbered by AVI, as a medical countermeasure against the pandemic H1N1 influenza virus (swine flu) in cooperation with the Transformational Medical Technologies program ("TMT") of the U.S. Department of Defense. The contract provides for funding of up to \$18 million to advance the development of AVI-7100, including studies enabling an Investigational New Drug (IND) application with the U.S. Food and Drug Administration, the study of an intranasal delivery formulation, and the funding of a Phase 1 clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization.

AVI-7100 is the Company's lead RNA-based influenza therapeutic candidate using AVI's proprietary PMO*plus*™ chemistry. AVI recently secured additional funding of up to approximately \$4.0 million under an amendment to a separate earlier contract with DTRA to support, in cooperation with TMT, expanded preclinical evaluation of AVI-7100 against H1N1, H5N1 (avian flu), and drug resistant H1N1 and H3N2 flu strains.

2

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 June 7, 2010.

AVI BioPharma, Inc.

By: /s/ J. David Boyle II

J. David Boyle II Interim President and Chief Executive Officer, and Senior Vice President and Chief Financial Officer