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# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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## 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): **November 17, 2003**

### **AVI BioPharma, Inc.**

(Exact name of registrant as specified in its charter)

**Oregon**  
(State or other jurisdiction of  
incorporation or organization)

**0-22613**  
(Commission File Number)

**93-0797222**  
(IRS Employer  
Identification Number)

**One S.W. Columbia, Suite 1105**  
**Portland, OR 97258**  
(Address of principal executive offices)

**(503) 227-0554**  
Registrant's telephone number, including area code

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#### **Item 5. Other Events and Regulation FD Disclosure.**

The information set forth below pursuant to Item 12 shall also be deemed filed pursuant to Item 5.

#### **Item 7. Financial Statements, Pro Forma Financial Information and Exhibits.**

<u>Exhibit Number</u>	<u>Description</u>
99.1	Press Release dated November 17, 2003 announcing publication of two preclinical studies evaluating the potential of AVI's NEUGENE <sup>®</sup> antisense compounds in prostate cancer models.

#### **Item 12. Results of Operations and Financial Condition.**

AVI BioPharma, Inc. (the "Company") issued a press release on November 17, 2003, before the opening of trading in its Common Stock on the Nasdaq National Market System. A copy of the press release is filed herewith as Exhibit 99.1 and is incorporated herein by reference.

The Press Release announced publication of two preclinical studies evaluating the potential of AVI's NEUGENE<sup>®</sup> antisense compounds in prostate cancer models.

#### **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 Portland, State of Oregon, on November 18, 2003.

AVI BioPharma, Inc.

By: /s/ ALAN P. TIMMINS  
Alan P. Timmins  
*President and Chief Operating Officer*  
*(Principal Operating Officer)*

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## Text of Press Release

**Company Contacts:**

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**Investor Contacts:**

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**For Release 6 a.m. PST  
 Nov. 17, 2003**

### AVI BioPharma Announces Publication of Prostate Cancer Results

#### *NEUGENE Antisense Targets Are Effective in Two Preclinical Prostate Cancer Models*

**PORTLAND, Ore. — Nov. 17, 2003** — AVI BioPharma, Inc. (Nasdaq: AVII), today announced publication of two preclinical studies evaluating the potential of AVI's NEUGENE<sup>®</sup> antisense compounds in prostate cancer models. Since target selection is of paramount importance in antisense drug development, these studies demonstrate AVI's progress in validating prostate cancer targets. Results were published in the peer-reviewed journals *Cancer Gene Therapy* and *Clinical Cancer Research*.

"These two studies demonstrate AVI's commitment to developing antisense drugs for the potential treatment of cancer," said Patrick L. Iversen, senior vice president of research and development at AVI. "We are encouraged by these data and intend to pursue these targets for potential clinical development."

Results from the first study, conducted in collaboration with Oregon Health & Science University, demonstrated that a NEUGENE antisense agent inhibited cell growth, tumor vascularization and metastasis of human prostate cancer cells grafted into mice. The article, published in the November 2003 issue of *Cancer Gene Therapy*, is titled "A novel antisense inhibitor of MMP-9 attenuates angiogenesis, human prostate cancer cell invasion and tumorigenicity." This paper was authored by AVI BioPharma senior scientist Gayathri R. Devi, Ph.D.

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By targeting an enzyme, called MMP-9, which is associated with aggressive tumor growth in prostate cancer patients, AVI's antisense drug produced a significant inhibition of tumor invasion and angiogenesis. In addition, antisense to MMP-9 decreased tumor growth with tumor regression observed in a significant number of the treated animals. No apparent toxicity or mortality was associated with this NEUGENE antisense treatment. The data establish the feasibility of developing a nontoxic antisense drug for inhibiting invasion and metastasis of prostate cancer.

The second study, titled "Androgen receptor down-regulation in prostate cancer with phosphorodiamidate morpholino antisense oligomers," was authored by collaborators at Boston's Beth Israel Deaconess Medical Center and AVI scientists. It was published in the Nov. 15, 2003, publication of *Clinical Cancer Research* and also will be presented at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics, to be held in Boston, Nov. 17-21, 2003. The conference is sponsored by the American Association for Cancer Research, the National Cancer Institute and the European Organization for Research and Treatment of Cancer.

The results of this study demonstrate the effectiveness of AVI's novel antisense compound AVI-4451 against human prostate cancer in animal models by targeting the androgen receptor (AR). AR plays a pivotal role in the growth and proliferation of prostate cancer. Analysis of tissue distribution of AVI-4451 showed significant drug levels in both the mouse prostate and in tumor tissue.

AVI-4451 specifically down-regulated AR levels in both cell culture and animal tumor models. This correlated with a reduction in prostate specific antigen (PSA) following administration of the antisense drug. PSA is a widely used marker of tumor progression in patients with prostate cancer. These studies are supported in part by a National Institute of Health FLAIR grant.

Prostate cancer is the most common type of cancer found in American men, other than skin cancer. The American Cancer Society estimates that there will be about 220,900 new cases of prostate cancer in the United States in the year 2003. About 28,900 men will die of this disease. Prostate cancer is the second leading cause of cancer death in men, exceeded only by lung cancer.

**About AVI BioPharma**

AVI BioPharma develops therapeutic products for the treatment of life-threatening diseases using two technology platforms: third-generation NEUGENE antisense drugs and cancer immunotherapy. AVI's lead NEUGENE antisense compound is designed to target cell proliferation disorders, including cardiovascular restenosis, cancer, and polycystic kidney disease. In addition to targeting specific genes in the body, AVI's antiviral program uses NEUGENE antisense compounds to target single-stranded RNA viruses, including West Nile virus, SARS coronavirus, calicivirus and hepatitis C. AVI's second technology, AVICINE<sup>®</sup>, is a therapeutic cancer vaccine with late-stage trials planned for the treatment of pancreatic cancer. More information about AVI is available on the company's Web site at <http://www.avibio.com/>.

*“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*

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*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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