

PROSPECTUS



AVI BIOPHARMA, INC.
5,647,016 Shares of Common Stock

This prospectus relates to the offer and sale from time to time by the selling shareholders identified in this prospectus, and their pledgees, assignees and successors-in-interest, of 5,647,016 shares of our common stock. We are filing the registration statement of which this prospectus is a part in order to fulfill contractual obligations with the selling shareholders.

The prices at which such selling shareholders may sell the shares in this offering will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive any of the proceeds from the sale of the shares. See "Plan of Distribution" beginning on page 6.

Our common stock is quoted on the Nasdaq Global Market under the symbol "AVII." The closing sales price of our common stock on the Nasdaq Global Market on May 15, 2008 was \$1.53 per share.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 19, 2008.

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You should rely only on the information contained in this prospectus, including information incorporated by reference in this prospectus, or any supplement to which we have referred you. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See “Incorporation of Certain Documents by Reference” on page .

Unless the context otherwise requires, all references to “we,” “our,” “our company, or “the Company” in this prospectus refer to AVI BioPharma, Inc., an Oregon corporation.

About AVI BioPharma, Inc.

We are a biopharmaceutical company developing therapeutic products principally based on third-generation NEUGENE® antisense technology. Our principal products in development target life-threatening diseases, including cardiovascular, infectious, and genetic diseases. Currently approved drugs or other therapies for these diseases often prove to be ineffective or produce undesirable side effects. Our pre-clinical and clinical studies indicate that our technology may lead to development of drugs that we believe offer more effective treatment options with fewer side effects than currently approved products. A patent estate including 186 patents (foreign and domestic) issued or licensed to us and 192 pending patent applications (domestic and foreign) protects our technologies. Our lead product candidate, Resten-NG®, which is targeted at cardiovascular disease, addresses a market we believe may exceed \$3 billion worldwide.

Our executive offices are located at One S.W. Columbia, Suite 1105, Portland, OR 97258. Our telephone number is (503) 227-0554, fax number is (503) 227-0751, and our website address is www.avibio.com. The information on our website is not incorporated by reference into this prospectus.

This prospectus includes our trademarks and registered trademarks, including NeuGene®, Avicine®, Resten-NG®, Resten-CP™, and Oncomyc-NG™. Each other trademark, trade name or service mark appearing in this annual report belongs to its holder.

The Offering

Common stock offered by selling shareholders	5,647,016 shares
Use of proceeds	We will not receive any proceeds from the sale of shares in this offering. See “Selling Shareholders.”
Nasdaq National Market symbol	AVII

RISK FACTORS

Investment in our securities involves a high degree of risk. You should carefully consider the risks described in the section entitled “Risk Factors” in any prospectus as well as in the section entitled “Risk Factors” contained in our most recent annual report on Form 10-K, which has been filed with the SEC and are incorporated herein by reference in their entirety, as well as other information in this prospectus and any other documents or reports incorporated by reference herein before purchasing any of our securities. Each of the risks described in these sections and documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a loss of your investment.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference herein and therein contain forward-looking statements regarding our plans, expectations, estimates and beliefs. Our actual results could differ materially from those discussed in, or implied by, these forward-looking statements. Forward-looking statements are identified by words such as “believe,” “anticipate,” “expect,” “intend,” “plan,” “will,” “may,” and other similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. We have based these forward-looking statements largely on our expectations. Forward-looking statements in this report include, but are not necessarily limited to, those relating to:

- our intention to introduce new products;
- receipt of any required FDA or other regulatory approval for our products;
- our expectations about the markets for our products;
- acceptance of our products, when introduced, in the marketplace;
- our future capital needs;
- results of our research and development efforts, and
- success of our patent applications.

Forward-looking statements are subject to risks and uncertainties, certain of which are beyond our control. Actual results could differ materially from those anticipated as a result of the factors described in the “Risk Factors” and detailed herein and in our other Securities and Exchange Commission filings, including among others:

- the effect of regulation by the FDA and other governmental agencies;
- delays in obtaining, or our inability to obtain, approval by the FDA or other regulatory authorities for our products;
- research and development efforts, including delays in developing, or the failure to develop, our products;
- the development of competing or more effective products by other parties;
- the results of pre-clinical and clinical testing;
- uncertainty of market acceptance of our products;
- problems that we may face in manufacturing, marketing, and distributing our products;
- our inability to raise additional capital when needed;
- delays in the issuance of, or the failure to obtain, patents for certain of our products and technologies; and
- problems with important suppliers and business partners.

Because of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus or incorporated by reference might not occur. Factors that cause actual results or conditions to differ from those anticipated by these and other forward-looking statements

include those more fully described in the “Risk Factors” section and elsewhere in this prospectus. Except for our ongoing obligations to disclose material information as required by the federal securities laws, we undertake no obligation to release publicly any revisions to any forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. All of the above factors are difficult to predict, contain uncertainties that may materially affect our actual results and may be beyond our control. New factors emerge from time to time, and it is not possible for our management to predict all of such factors or to assess the effect of each factor on our business.

USE OF PROCEEDS

The proceeds from the sale of the selling shareholders’ shares of common stock will belong to the selling shareholders. We will not receive any proceeds from the sale by the selling shareholders of these shares of common stock. See “Selling Shareholders.”

DESCRIPTION OF TRANSACTION

On March 12, 2008, we entered into an Agreement and Plan of Merger (“the Merger Agreement”) with Ercole Biotech, Inc., a privately held Delaware corporation (“Ercole”). Under the terms of the Merger Agreement, a wholly-owned subsidiary of AVI merged with and into Ercole, with Ercole surviving the merger as a wholly-owned subsidiary of the Company (the “Merger”). Under the terms of the Merger Agreement, AVI issued 5,647,016 shares of AVI Common Stock to shareholders of Ercole other than AVI in exchange for all of the issued and outstanding shares of Ercole’s common stock and preferred stock held by such holders, and, subject to receipt of information required by applicable law from each such holder, we agreed to register those 5,647,016 shares of AVI Common Stock for resale by the Ercole shareholders. AVI also held shares of Ercole preferred stock, but received no portion of the merger consideration for the shares it held.

SELLING SHAREHOLDERS

This prospectus relates to the resale from time to time of up to a total of 5,647,016 shares of our common stock by the selling shareholders. The shares were issued in a private placement exempt from registration requirements under the Securities Act of 1933, as amended (the “Securities Act”). Under the Merger Agreement, we agreed to file a registration statement, of which this prospectus is a part, with the SEC to register the resale of these shares and to keep the registration statement effective until September 20, 2009.

The following table, based upon information currently known by us, sets forth as of May 16, 2008: (i) the number of shares held of record or beneficially by each selling shareholder as of such date and (ii) the number of shares that may be offered under this prospectus. Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting or investment power with respect to shares, and includes shares of common stock plus any securities held by the holder exercisable for or convertible into shares of common stock within sixty (60) days after May 16, 2008, in accordance with Rule 13d-3(d)(1) under the Securities Exchange Act of 1934, as amended. None of the selling shareholders are a broker-dealer or an affiliate of a broker-dealer.

Name of Selling Shareholder	Common Stock Beneficially owned prior to the offering	Common stock owned upon completion of the offering (2)	Percentage of common stock owned upon completion of this offering
Altman, Sidney	4,270	0	*
ARBA Partners, LP (3)	20,118	0	*
Bebenek, Tadeusz	500,279	0	*
Blass, Josef and Ewa, JTROS	85,631	0	*
Bocckino, Stephen B.	74,446	0	*
Brostoff, Steven W.	29,778	0	*

Buckley, Brian	15,484	0	*
Dominski, Zbigniew	6,321	0	*
Duncan, Clayton I.	997,138	229,846	*
Gorlach, Jorn and Jenifer, JTROS	104,224	0	*
Graziewicz, Maria	74,446	0	*
H&M Holdings, LLC (4)	62,019	33,432	*
Juliano, Rudolph L.	5,878	0	*
Kenan - Flagler Business School Foundation (5)	11,911	0	*
Kole, Ryszard	94,919	0	*
Kole, Ryszard and Jolanta, JTROS	1,865,623	0	*
Kopczynski, Casey	14,889	0	*
Kouri, Richard E.	205,471	0	*
Love, W. Bennett	745,960	147,412	*
Maroglou, Athanasios	107,202	0	*
Mitchell, Beverly S.	5,189	0	*
North Carolina Biotechnology Center (6)	120,167	0	*
Patterson, Winston Campbell	5,878	0	*
Redick, Ann	59,557	0	*

Reichow, Richard W.	422,767	118,158	*
Roberts, Jennifer Dillman	1,191	0	*
Sazani, Peter	233,265	0	*
Summerton, James E.	96,658	0	*
University of North Carolina at Chapel Hill Foundation, The (7)	154,353	0	*
Venuti, Robert P.	25,948	0	*
Ward, David P.	12,973	0	*
Woody, Jr. W. Ruffin	11,911	0	*

(1) Of the total shares of common stock listed as owned by the selling shareholders, a total of 621,158 shares are held in an escrow account to secure certain indemnification and other obligations of the former shareholders of Ercole in connection with the Merger. It is expected that these shares (less any shares that may be distributed from the escrow account to us in satisfaction of indemnification claims) will be released from escrow and distributed to the selling shareholders on or about March 20, 2009. The number of shares indicated as owned by each selling shareholder includes those shares which such selling shareholder is entitled to receive upon distribution of these shares from the escrow account.

(2) We do not know when or in what amounts a selling shareholder may offer shares for sale. The selling shareholders may not sell any or all of the shares offered by this prospectus. Because the selling stockholders may offer all or some of the shares pursuant to this offering, we cannot estimate the number of the shares that will be held by the selling shareholders after completion of the offering. However, for purposes of this table, we have assumed the sale by the selling shareholders of all of the shares of common stock available for resale under this prospectus. Percent calculations are based on 70,429,110 shares of our common stock issued and outstanding as of March 20, 2008.

(3) C.D.M. Properties LLC is the general partner of this selling shareholder. Clara Markowicz, Martin Jaffe and Victor Markowicz are the managers of C.D.M. Properties LLC and exercise the voting and dispositive powers with regard to the registered shares.

(4) Fred Hutchison, Allen Baum, John Fogg and William Wofford are the current managers of this selling

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shareholder and exercise the voting and dispositive powers with regard to the registered shares.

(5) W. Steven Jones, John C. O'Hara, Jr., William Hugh McLean, David W. Stevens, James W. Dean, David A. Hoffman, Gregory W. Brown, Susan Cates, Robert C. Eubanks, Jr., J. Alston Gardner, Paul J. Rizzo, William L. Rogers, and Thomas J. Ward are current members of the Board of Directors of this selling shareholder, and exercise the voting and dispositive powers with regard to the registered shares.

(6) E. Norris Tolson is President and CEO of this selling shareholder and exercises the voting and dispositive powers with regard to the registered shares.

(7) Richard L. Mann is Treasurer of this selling shareholder and exercises the voting and dispositive powers with regard to the registered shares.

* Less than one percent.

PLAN OF DISTRIBUTION

The selling shareholders and their successors, which includes their pledgees, donees, partnership distributees and other transferees receiving the offered shares in non-sale transfers, may sell any or all of the offered shares of common stock on the Nasdaq Global Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling shareholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers,
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction,
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account,
- an exchange distribution in accordance with the rules of the applicable exchange,
- privately- negotiated transactions,
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part,
- broker-dealers may agree with the selling shareholder to sell a specified number of such shares at a stipulated price per share,
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise,
- a combination of any such methods of sale, or
- any other method permitted pursuant to applicable law.

The selling shareholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling shareholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with NASDAQ Marketplace Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with NASDAQ Marketplace Rule IM-2440.

In connection with the sale of the common stock or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling shareholders may also sell shares of the common stock short and deliver these securities to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such

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broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling shareholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We have agreed to indemnify the selling shareholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because the selling shareholders may, individually, be deemed to be an “underwriter” within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling shareholders.

We have agreed to keep this prospectus effective until September 20, 2009. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling shareholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the common stock by the selling shareholders or any other person. We will make copies of this prospectus available to the selling shareholders and have informed it of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of common stock being offered hereby has been passed upon for AVI BioPharma, Inc. by Davis Wright Tremaine LLP of Portland, Oregon.

EXPERTS

The financial statements of AVI BioPharma, Inc. as of December 31, 2007 and 2006, and for each of the years in the three-year period ended December 31, 2007, and management’s assessment of the effectiveness of internal control over financial reporting as of December 31, 2007 have been incorporated by reference herein and in the registration statement in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2006 financial statements refers to a change in the accounting for share-based payments.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the units we are offering

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under this prospectus. This prospectus does not contain all of the information set forth in the registration statement, as amended, and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement, as amended, and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as amended, as well as our reports, proxy statements and other information, at the SEC’s Public Reference Room at Room 100 F Street N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Most of our SEC filings are also accessed through our website at www.avibio.com.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to “incorporate by reference” in this prospectus the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus or a prospectus supplement. We incorporate by reference in this prospectus the documents listed below and any future filings that we may make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended, prior to the termination of the offering under this prospectus:

- Annual Report on Form 10-K for the year ended December 31, 2007;
- Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008;
- Definitive Proxy Statement on Schedule 14A filed on April 15, 2008;
- Current Reports on Form 8-K filed on April 16, 2008, March 28, 2008, March 25, 2008, March 13, 2008, March 3, 2008; February 13, 2008; and February 7, 2008; and
- The description of our common stock contained in our registration statement on Form 8-A filed on May 29, 1997.

Notwithstanding the foregoing, we are not incorporating any document or information deemed to have been furnished and not filed in accordance with SEC rules. You may obtain a copy of any or all of the documents referred to above which may have been or may be incorporated by reference into this prospectus (excluding certain exhibits to the documents) at no cost to you by writing or telephoning us at the following address:

AVI BioPharma, Inc.
Investor Relations

One S.W. Columbia
Suite 1105
Portland, OR 97258
Attn: Michael C. Hubbard
(503) 227-0554

The mailing address of our principal executive offices is AVI BioPharma, Inc., One S.W. Columbia Suite 1105 Portland, OR 97258, and our telephone number at that location is (503) 227-0554.

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5,647,016 Shares

AVI BioPharma, Inc.

Common Stock



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May 19, 2008
