SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE TO TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1) UNDER THE SECURITIES EXCHANGE ACT OF 1934

EXEGENICS INC. (Name of subject company)

ELK ACQUISITION, INC.
A WHOLLY-OWNED SUBSIDIARY OF
AVI BIOPHARMA, INC.
(Names of filing person-offeror)

COMMON STOCK, PAR VALUE \$0.01 PER SHARE
SERIES A CONVERTIBLE PREFERRED STOCK, PAR VALUE \$0.01 PER SHARE
(Title of class of securities)

301610 (COMMON STOCK) NONE (PREFERRED STOCK) (Cusip number of securities)

DENIS R. BURGER, PH.D.
CHIEF EXECUTIVE OFFICER
AVI BIOPHARMA, INC.
ONE S.W. COLUMBIA, SUITE 1105, PORTLAND, OR 97258
(503) 227-0554

(Name, address, including zip code, and telephone number of person authorized to receive notices and communications on behalf of filing person)

WITH COPIES TO:

Francis R. Wheeler, Esq. Cooley Godward LLP 380 Interlocken Crescent, Suite 900 Broomfield, Colorado 80021 (720) 566-4000 Joel I. Papernik, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
666 Third Avenue

666 Third Avenue New York, New York 10017 (212) 935-3000

CALCULATION OF FILING FEE

TRANSACTION VALUATION* \$12,206,300

AMOUNT OF FILING FEE** \$988

- Estimated for purposes of calculating the amount of the filing fee only in accordance with Rules 0-11(d) and 0-11(a)(4) under the Securities Exchange Act of 1934, based upon, (i) with respect to the eXegenics Inc. common stock, (a) \$0.57, the average of the high and low price per share of eXegenics Inc. common stock on July 22, 2003 as reported on the NASDAQ National Market multiplied by (b) the maximum number of shares of eXegenics Inc. common stock estimated to be received by AVI BioPharma, Inc. or cancelled pursuant to the exchange offer and subsequent merger, and (ii) with respect to the eXegenics Inc. Series A Convertible Preferred Stock, (a) \$0.96, the book value per share of the eXegenics Inc. Series A Convertible Preferred Stock multiplied by (b) the maximum number of shares of eXegenics Inc. Series A Convertible Preferred Stock estimated to be received by AVI BioPharma, Inc. or cancelled pursuant to the exchange offer and subsequent merger.
- * .0000809 of the value of the transaction.
- Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: \$974

Filing Party: AVI BioPharma, Inc. Date Filed: July 25, 2003

Check the box if the filing relates solely to preliminary communications made before the commencement of the tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- third-party tender offer subject to Rule 14d-1.
- issuer tender offer subject to Rule 13e-4.
 - going-private transaction subject to Rule 13e-3.

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Check the following box if the filing is a final amendment reporting the results of the tender offer: o

This Tender Offer Statement on Schedule TO relates to the commencement of an offer by AVI BioPharma, Inc., an Oregon corporation ("AVI BioPharma"), through its wholly-owned subsidiary, Elk Acquisition, Inc., a Delaware corporation ("Merger Sub"), to exchange 0.103 of a share of common stock, par value \$0.0001 per share, of AVI BioPharma (the "AVI BioPharma Shares") for each issued and outstanding share of common stock, par value \$0.01 per share, of eXegenics Inc., a Delaware corporation ("eXegenics"), and 0.155 of an AVI BioPharma Share for each issued and outstanding share of Series A Convertible Preferred Stock, par value \$0.01 per share, of eXegenics, as described in the Prospectus referenced below (the "Offer").

The offer is made pursuant to an Agreement and Plan of Merger, dated as of July 16, 2003, by and among AVI BioPharma, Merger Sub and eXegenics which contemplates the merger of Merger Sub with and into eXegenics (the "Merger"). AVI BioPharma has filed a registration statement with the Securities and Exchange Commission on Form S-4 relating to the AVI BioPharma Shares to be issued to stockholders of eXegenics in the Offer and the Merger (the "Registration Statement"). The terms and conditions of the Offer and the Merger are set forth in the prospectus which is a part of the Registration Statement (the "Prospectus"), and the related Common Stock Letter of Transmittal and Preferred Stock Letter of Transmittal (collectively, the "Letters of Transmittal"), which are Exhibits (a)(1), (a)(2) and (a)(3) hereto respectively. The Prospectus and the Letters of Transmittal, as each may be amended or supplemented from time to time, together constitute the "Offer."

ITEMS 1 THROUGH 11

As permitted by General Instruction F to the Schedule TO, all of the information in the Prospectus and the related Letters of Transmittal, and any prospectus supplement or other supplement thereto related to the Offer filed with the Securities and Exchange Commission after the date hereof, is hereby incorporated by reference in answer to Items 1 through 11 of this Statement, except as otherwise set forth below.

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ITEM 12. EXHIBITS.

| EXHIBIT NUMBER | DESCRIPTION |
|-------------------|--|
| (a)(1) | Prospectus relating to the AVI BioPharma Shares to be issued in the Offer and the Merger (incorporated by reference from AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(2) | Form of Common Stock Letter of Transmittal (incorporated by reference from exhibit 99.1 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(3) | Form of Preferred Stock Letter of Transmittal (incorporated by reference from exhibit 99.2 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(4) | Form of Notice of Guaranteed Delivery (incorporated by reference from exhibit 99.3 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(5) | Form of Letter from Mellon Investor Services LLC to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees (incorporated by reference from exhibit 99.4 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(6) | Form of Letter from Brokers, Dealers, Commercial Banks, Trust Companies and Nominees to Clients (incorporated by reference from exhibit 99.5 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(7) | Guidelines for Certification of Taxpayer Identification Number on Substitute Form W-9 (incorporated by reference from exhibit 99.6 to AVI BioPharma's Registration Statement on Form S-4 filed on July 25, 2003). |
| (a)(8) | Press release of AVI BioPharma, dated July 16, 2003 (included in AVI BioPharma's Form 425 filed July 16, 2003). |
| (d)(1) | Agreement and Plan of Merger dated as of July 16, 2003 among AVI BioPharma, eXegenics and Merger Sub (incorporated by reference from Exhibit 2.1 to AVI BioPharma's Registration Statement on Form S-4 filed July 25, 2003). |
| (d)(2) | Form of Stockholder Agreement dated as of July 16, 2003 between AVI BioPharma and certain eXegenics stockholders (incorporated by reference from Exhibit 2.2 to AVI BioPharma's Registration Statement on Form S-4 filed July 25, 2003). |

ITEM 13. INFORMATION REQUIRED BY SCHEDULE 13e-3.

Not applicable.

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SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: July 25, 2003

By: /s/ ALAN P. TIMMINS

Name: Alan P. Timmins

Title: President

AVI BIOPHARMA, INC.

By: /s/ ALAN P. TIMMINS

Name:

Title:

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Alan P. Timmins

President

EXHIBIT INDEX

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SCHEDULE I

INFORMATION CONCERNING EXECUTIVE OFFICERS AND DIRECTORS OF AVI BIOPHARMA CORPORATION

The following table sets forth the name, age and present principal occupation or employment, and material occupations, positions, offices or employments for the past five years, of each executive officer and director of AVI BioPharma. The business address of each executive officer of AVI BioPharma is AVI BioPharma, Inc., One S.W. Columbia Street, Suite 1105, Portland, Oregon 97258.

| NAME OF EXECUTIVE OFFICERS OF AVI BIOPHARMA | AGE | PRESENT PRINCIPAL OCCUPATION OR EMPLOYMENT AND FIVE-YEAR EMPLOYMENT HISTORY |
|--|-----|---|
| Denis R. Burger, Ph.D | 60 | Dr. Burger has served as Chief Executive Officer of AVI BioPharma for more than the past five years. |
| Patrick L. Iversen, Ph.D | 47 | Dr. Iversen has served as Senior Vice President of Research and Development for more than the past five years. |
| David H. Mason, Jr., MD | 56 | Dr. Mason has served as Senior Vice President of Clinical Development and Regulatory Affairs of AVI BioPharma since November 2000. He had served as Vice President of Medical Affairs and then Head of Medical Affairs and Chief Medical Officer for Elan Corporation, plc, a biopharmaceutical company, from 1994 to 2000. |

| Alan P. Timmins | | Mr. Timmins has served as President of AVI BioPharma since May 2000 and Chief Operating Officer of AVI BioPharma since October 1996. |
|--|-----------|--|
| Mark M. Webber | 48 | Mr. Webber has served as Chief Financial Officer and Chief Information Officer of AVI BioPharma since May 2000 and as Controller since October 1997. |
| Dwight D. Weller, Ph.D NAME AND BUSINESS ADDRESS OF NON-EMPLOYEE DIRECTORS OF AVI BIOPHARMA | 52 age | Dr. Weller has served as Senior Vice President of Chemistry and Manufacturing for more than the past five years. PRESENT PRINCIPAL OCCUPATION OR EMPLOYMENT AND FIVE-YEAR EMPLOYMENT HISTORY |
| John W. Fara, Ph.D 1360 O'Brien Drive Menlo Park, CA 94025 | 61 | Dr. Fara has served as the President and Chief Executive Officer of DepoMed, Inc. a biopharmaceutical company, since 1996, and as its Chairman of the Board since April 2000. |
| Andrew J. Ferrara 75 Federal Street, 9th Floor Boston, Massachusetts 02110 | 63 | Mr. Ferrara has served as President of Boston Healthcare Associates, Inc., a consulting firm that specializes in helping pharmaceutical and biotechnology companies achieve their development and revenue objectives with an emphasis on strategic and reimbursement planning, since 1993. |
| James B. Hicks, Ph.D 2611 SW 3rd, #200 Portland OR 97201 | 56 | Dr. Hicks has served as the Chief Executive Officer, Chief Scientist and a director of Hedral Therapeutics, Inc., a biotechnology company, since its founding in 1993. |
| Joseph Rubinfeld, Ph.D 4140 Dublin Blvd., Suite 200 Dublin, CA 94568 | 70 | Dr. Rubinfeld has served as Chief Executive Officer, President, Chief Scientific Officer and a director of SuperGen, Inc., a biotechnology company, since its inception in 1991. |

QuickLinks

ITEMS 1 THROUGH 11 ITEM 13. INFORMATION REQUIRED BY SCHEDULE 13e-3.

SIGNATURE EXHIBIT INDEX SCHEDULE I