AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JUNE 16, 2000

REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

AVI BIOPHARMA, INC.
(Exact name of registrant as specified in its charter)

OREGON	93-0797222
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

ONE S.W. COLUMBIA, SUITE 1105, PORTLAND, OR 97258, (503) 227-0554
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:

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PORTLAND, OR 97201-6618	PORTLAND, OR 97204
(503) 226-1191	(503) 243-2300

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. /X/

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. / /

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. / /

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act

registration statement number of the earlier effective registration statement for the same offering. / /

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. / /

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, $.0001 value(2)(3).....	3,750,000	$12.32	$46,200,000	$12,197

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933 based upon the average of the high and low prices of the registrant's common stock on June 15, 2000, as reported on the Nasdaq National Market.

(2) Includes 450,000 shares to be issued pursuant to the underwriters' over-allotment option.

(3) Includes 300,000 shares to be issued upon exercise of a warrant to be granted to the representative of the underwriters to purchase up to 10% of the shares sold in the offering, excluding over-allotments, at 120% of the share offering price.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

SUBJECT TO COMPLETION, DATED JUNE 16, 2000

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THE PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

3,000,000 SHARES

[LOGO]

COMMON STOCK

$ PER SHARE

We are offering 3,000,000 shares of common stock. This is a firm commitment underwriting. Our common stock trades on the Nasdaq National Market under the symbol "AVII." On June 15, 2000, the last reported sale price of our common stock on the Nasdaq National Market was $12.19 per share.

INVESTING IN OUR COMMON STOCK INVOLVES SIGNIFICANT RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 7.

	PER SHARE	TOTAL
Price to the public.....	$	$
Underwriting discount.....		
Proceeds before expenses to AVI BioPharma, Inc.....		

We have granted Paulson Investment Company, Inc. an over-allotment option of up to 450,000 additional shares at the public offering price, less underwriting discount, within 45 days from the date of this prospectus, to cover over-allotments.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

PAULSON INVESTMENT COMPANY, INC.

I-BANKERS SECURITIES, INC.

The date of this prospectus is , 2000

In this prospectus, "AVI," "we," "us" and "our" refer to AVI BioPharma, Inc.

TRADEMARKS

This prospectus includes our registered trademark, NeuGene-Registered Trademark-, and our unregistered trademarks Avicine-TM-, Xactin-TM-, Resten-NG-TM-, Oncomyc-NG-TM- and NeuBiotics-TM-. Each other trademark, trade name or service mark appearing in this prospectus belongs to its respective owner.

PROSPECTUS SUMMARY

THIS SUMMARY DOES NOT CONTAIN ALL THE INFORMATION THAT MAY BE IMPORTANT TO YOU. THERE IS MORE DETAILED INFORMATION APPEARING IN OTHER SECTIONS OF THIS PROSPECTUS. PLEASE READ THE ENTIRE PROSPECTUS CAREFULLY.

OUR COMPANY

BUSINESS

We are a biopharmaceutical company developing therapeutic products based on our two core technologies, cancer immunotherapy and NeuGene antisense. Our principal products target life-threatening diseases, with initial applications in pancreatic and colorectal cancers, cardiovascular restenosis, and infectious disease as summarized in the following table.

TECHNOLOGY	PRODUCT	INDICATION	STAGE
Cancer immunotherapy.....	Avicine therapeutic vaccine	Cancer	Clinical
	Xactin monoclonal antibodies	Cancer	Pre-clinical
NeuGene antisense.....	Resten-NG	Restenosis	Clinical
	Oncomyc-NG	Cancer	Pre-clinical
	NeuBiotics	Infectious diseases	Pre-clinical

Currently approved drugs or other therapies for these diseases often prove to be ineffective in treating advanced stages of these diseases or produce numerous undesirable side effects. Our pre-clinical and clinical studies indicate that our two core technologies may produce significantly fewer side effects and offer more effective treatment options than currently approved products for these diseases. Our technologies are protected by a strong patent position including 44 issued patents and 49 applications pending. Each of our lead products, Avicine and Resten-NG, addresses a large market estimated to exceed $1 billion worldwide.

CANCER IMMUNOTHERAPY

We have completed three Phase I and two Phase II clinical trials with Avicine, our therapeutic cancer vaccine, which is our most advanced product. Avicine is administered to patients who already have cancer to stimulate an immune response that may be effective in fighting the existing cancer. The

therapeutic benefit of a cancer vaccine depends on the existence of specific target sites, called tumor antigens, on cancer cells. The target for Avicine is a hormone called human chorionic gonadotropin, or hCG, which is responsible for stimulating fetal development during pregnancy. It is also a tumor antigen on all major types of cancer, including cancers of the colon, pancreas, prostate, lung and breast. We believe that hCG plays an important role in the spread of cancer. The effectiveness of Avicine is based on stimulating an immune response against hCG.

From our clinical studies involving more than 200 patients, we believe that Avicine is a safe and essentially non-toxic therapy capable of producing a specific immune response in most patients. Further, the patients who mounted an immune response to hCG lived longer on average than patients treated with chemotherapy. We intend to investigate further the use of Avicine alone and in conjunction with chemotherapy in Phase II and Phase III clinical trials.

In April 2000, we entered into an alliance with SuperGen, Inc. for shared development and marketing rights for Avicine. Under the terms of the agreement, AVI and SuperGen, Inc. will equally share in future clinical development and FDA registration costs as well as in profits from product sales in the United States. Closing of the transaction will occur prior to the effectiveness of this offering.

We have an exclusive product license agreement with Abgenix, Inc. for the use of its technology to produce fully human monoclonal antibodies against hCG cancer targets, which we call Xactin antibodies. These Xactin antibodies are directed at targets identified by our Avicine clinical trials. Two Xactin antibodies are in pre-clinical development and are designed to treat cancer patients as a standalone therapy or in combination with Avicine.

NEUGENE ANTISENSE

We have developed gene-inactivating compounds called NeuGene antisense drugs that we believe are more stable, specific, efficacious, and safe than other antisense or gene-inactivating technologies. Our NeuGene drugs are distinguished by a novel chemical structure which differs from the earlier generation structures of competing technologies.

NeuGenes are synthetic drugs that are designed to block the function of specific genetic sequences involved in the disease process. Targeting specific genetic sequences provides for greater selectivity than is available through conventional drugs. NeuGenes have the potential to provide safe and effective treatment for a wide range of human diseases.

We have completed pre-clinical studies using our NeuGene compounds in the treatment of restenosis, which is the blockage of arteries following balloon angioplasty, and cancer. We finished a Phase I clinical trial of Resten-NG for restenosis in April 2000 and a Phase II clinical study is planned to begin mid-year 2000. We plan to commence Phase I/II clinical studies in cancer with Oncomyc-NG late in 2000. Finally, we intend to complete pre-clinical development of our first NeuGene-based antibiotics, called NeuBiotics, later this year.

DEVELOPMENT AND COMMERCIALIZATION STRATEGY

Our experience and resources enable us to initiate drug discovery and development and to move drug candidates through pre-clinical development and into Phase I and II human clinical trials. Our near-term strategy is to co-develop products with strategic partners or to license the marketing rights for our products to pharmaceutical partners after we complete one or more Phase II clinical trials. In this manner, costs associated with late-stage clinical development and marketing will be shared with, or the responsibility of, our strategic partners. With additional resources we may consider assuming greater responsibility for the late-stage clinical development and marketing opportunities of future product candidates.

Our executive offices are located at One SW Columbia, Suite 1105, Portland, Oregon 97258, and we can be reached at (503) 227-0554. Our World Wide Web address is "http://www.avibio.com." Information on our web site does not constitute a part of this prospectus.

THE OFFERING

Common stock	3,000,000 shares
Common stock to be outstanding after this offering	19,711,757 shares
Use of proceeds	To finance clinical trial costs of Avicine and clinical trial costs of our NeuGene antisense program, for research and development, including pre-clinical testing of our other product candidates, to finance manufacturing-related leasehold improvements and related manufacturing equipment, and for working capital and general corporate purposes.

The outstanding share information above is based on the number of shares outstanding as of May 31, 2000 and excludes:

- 7,875,991 shares of our common stock issuable upon the exercise of outstanding options and warrants;
- 1,684,211 shares of our common stock issuable to SuperGen, Inc. upon the closing of our alliance for the shared development and marketing of Avicine and shares of our common stock issuable upon the exercise of a warrant for up to 10% of our then-outstanding common stock to be issued to SuperGen, Inc.;
- up to 450,000 shares of our common stock issuable upon exercise of the over-allotment option granted to Paulson Investment Company, Inc.; and
- 300,000 shares of our common stock issuable upon exercise of the representative's warrants.

EXCEPT AS OTHERWISE INDICATED, ALL INFORMATION IN THIS PROSPECTUS ASSUMES NO EXERCISE OF THE OVER-ALLOTMENT OPTION OR THE REPRESENTATIVE'S WARRANTS.

SUMMARY FINANCIAL INFORMATION

The following table sets forth our summary financial information. You should read this information together with our financial statements and other related information elsewhere in this prospectus.

The pro forma as adjusted balance sheet data reflect the receipt of the estimated net proceeds from the sale of 3,000,000 shares of our common stock, at an estimated price of $12.00 per share, after deducting the underwriting discount and estimated offering expenses.

(IN THOUSANDS, EXCEPT PER SHARE DATA)	YEARS ENDED DECEMBER 31, 1997	1998	1999	JULY 22, 1980 (INCEPTION) TO DECEMBER 31, 1999	THREE MONTHS ENDED MARCH 31, 1999	2000	JULY 22, 1980 (INCEPTION) TO MARCH 31, 2000
					(UNAUDITED)		(UNAUDITED)
STATEMENT OF OPERATIONS DATA:							
Revenues	$ 14	$ 120	$ 17	$ 841	$ 4	$ 1,132	$ 1,973
Research and development	(2,737)	(6,307)	(6,672)	(24,728)	(1,343)	(1,936)	(26,664)
General and administrative	(1,282)	(1,621)	(1,745)	(9,199)	(418)	(436)	(9,635)
Acquired in-process R&D(1)	--	(19,473)	(72)	(19,545)	(60)	--	(19,545)
Other income	389	547	194	1,576	77	101	1,677
Net loss	$(3,616)	$(26,734)	$(8,278)	$(51,054)	$(1,739)	$(1,140)	$(52,194)
Net loss per share--basic & diluted	$ (0.36)	$ (2.27)	$ (0.62)	--	$ (0.13)	$ (0.07)	--
Cash flow from operations	$(3,006)	$ (6,736)	$(7,561)	$(26,751)	$(1,622)	$(1,417)	$(28,168)

	AT MARCH 31, 2000
	PRO FORMA

	ACTUAL	AS ADJUSTED
	(UNAUDITED)	
BALANCE SHEET DATA:		
Cash and investments	$14,380	$47,470
Working capital	13,662	46,752
Total assets	15,791	48,881
Shareholders' equity	15,024	48,114

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(1) Amounts relate to acquired in-process research and development expenses incurred in connection with the acquisition of ImmunoTherapy Corporation.

RISK FACTORS

AN INVESTMENT IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER THE SPECIFIC FACTORS LISTED BELOW, TOGETHER WITH THE CAUTIONARY STATEMENT THAT FOLLOWS THIS SECTION AND THE OTHER INFORMATION INCLUDED IN THIS PROSPECTUS, BEFORE PURCHASING SHARES IN THIS OFFERING. IF THE POSSIBILITIES DESCRIBED AS RISKS BELOW ACTUALLY OCCUR, OUR OPERATING RESULTS AND FINANCIAL CONDITION WOULD LIKELY SUFFER, AND THE TRADING PRICE OF OUR COMMON STOCK MAY FALL, CAUSING YOU TO LOSE SOME OR ALL OF YOUR INVESTMENT IN THE SHARES WE ARE OFFERING.

RISKS RELATING TO OUR BUSINESS

OUR PRODUCTS ARE IN AN EARLY STAGE OF DEVELOPMENT AND MAY NOT BE DETERMINED TO BE SAFE OR EFFECTIVE.

Although we began operations in 1980, we are only in the early stages of clinical development with our NeuGene antisense pharmaceutical products. We have devoted almost all of our time to research and development of our technology and products, protecting our proprietary rights and establishing strategic alliances. Our proposed NeuGene products are in the pre-clinical or clinical stages of development and will require significant further research, development, clinical testing and regulatory clearances. We have no products available for sale and we do not expect to have any products available for sale for several years. Our proposed products are subject to development risks. These risks include the possibilities that any of the products could be found to be ineffective or toxic, or could fail to receive necessary regulatory clearances. Although we have obtained favorable results in Phase II trials using Avicine to treat colorectal cancer patients, we cannot assure that we will obtain similar results in the contemplated Phase III trial protocol. We have not received any significant revenues from the sale of products and we cannot assure investors that we will successfully develop marketable products, that our sales will increase or that we will become profitable. Third parties may develop superior or equivalent, but less expensive, products.

WE HAVE INCURRED NET LOSSES SINCE OUR INCEPTION, AND WE MAY NOT ACHIEVE OR SUSTAIN PROFITABILITY.

We incurred a net operating loss of $8.3 million in 1999 and of $1.1 million for first quarter 2000. "Net operating loss" represents the amount by which our expenses, other than interest expense, exceed revenues. As of March 31, 2000, our accumulated deficit was $52.2 million. Our losses have resulted principally from expenses incurred in research and development of our technology and products and from selling, general and administrative expenses that we have incurred while building our business infrastructure. We expect to continue to incur significant operating losses in the future as we continue our research and development efforts and seek to obtain regulatory approval of our products. Our ability to achieve profitability depends on our ability to complete development of our products, obtain regulatory approvals and market our products. It is uncertain when, if ever, we will become profitable.

IF WE FAIL TO ATTRACT SIGNIFICANT ADDITIONAL CAPITAL, WE MAY BE UNABLE TO CONTINUE TO SUCCESSFULLY DEVELOP OUR PRODUCTS.

Since we began operations, we have obtained operating funds primarily by selling shares of our company. Based on our current plans, we believe that current cash balances will be sufficient to meet our operating needs for at

least the next 24 months. Furthermore, the actual amount of funds that we will need will be determined by many factors, some of which are beyond our control. These factors include the success of our research and development efforts, the status of our pre-clinical and clinical testing, costs relating to securing regulatory approvals and the costs and timing of obtaining new patent rights, regulatory changes, competition and technological developments in the market. We may need funds sooner than currently anticipated.

We anticipate that we may need to obtain additional funds at the end of this 24-month period. If necessary, potential sources of additional funding include strategic relationships, public or private sales

of shares of our common stock or debt or other arrangements. We do not have any committed sources of additional financing at this time. It is uncertain whether we can obtain additional funding when we need it on terms that will be acceptable to us or at all. If we raise funds by selling additional shares of our common stock or securities convertible into our common stock, the ownership interest of our existing shareholders will be diluted. If we are unable to obtain financing when needed, our business and future prospects would be materially adversely affected.

IF WE FAIL TO RECEIVE NECESSARY REGULATORY APPROVALS, WE WILL BE UNABLE TO COMMERCIALIZE OUR PRODUCTS.

All of our products are subject to extensive regulation by the United States Food and Drug Administration, or FDA, and by comparable agencies in other countries. The FDA and comparable agencies require new pharmaceutical products to undergo lengthy and detailed clinical testing procedures and other costly and time-consuming compliance procedures. Avicine has completed three Phase I and two Phase II studies but has not started Phase III trials. Our first NeuGene Antisense drug, Resten-NG, completed Phase I trials but has not yet entered Phase II efficacy studies. We cannot predict when we will initiate and complete our clinical trials or when we will be able to submit our products for regulatory review. Even if we submit a new drug application, there may be delays in obtaining regulatory approvals, if we obtain them at all. Sales of our products outside the United States will also be subject to regulatory requirements governing clinical trials and product approval. These requirements vary from country to country and could delay introduction of our products in those countries. We cannot assure you that any of our products will receive marketing approval from the FDA or comparable foreign agencies.

WE MAY FAIL TO COMPETE EFFECTIVELY, PARTICULARLY AGAINST LARGER, MORE ESTABLISHED PHARMACEUTICAL COMPANIES, CAUSING OUR BUSINESS TO SUFFER.

The biotechnology industry is highly competitive. We compete with companies in the United States and abroad that are engaged in the development of pharmaceutical technologies and products. They include: biotechnology, pharmaceutical, chemical and other companies; academic and scientific institutions; governmental agencies; and public and private research organizations.

Many of these companies and many of our other competitors have much greater financial and technical resources and production and marketing capabilities than we do. Our industry is characterized by extensive research and development and rapid technological progress. Competitors may successfully develop and market superior or less expensive products which render our products less valuable or unmarketable.

IF WE LOSE KEY PERSONNEL OR ARE UNABLE TO ATTRACT AND RETAIN ADDITIONAL, HIGHLY-SKILLED PERSONNEL REQUIRED FOR OUR ACTIVITIES, OUR BUSINESS WILL SUFFER.

Our success will depend to a large extent on the abilities and continued service of several key employees, including Drs. Denis Burger, Patrick Iversen and Dwight Weller. The loss of any of these key employees could significantly delay the achievement of our goals. Competition for qualified personnel in our industry is intense, and our success will depend on our ability to attract and retain highly skilled personnel.

ASSERTING, DEFENDING AND MAINTAINING OUR INTELLECTUAL PROPERTY RIGHTS COULD BE DIFFICULT AND COSTLY, AND OUR FAILURE TO DO SO WILL HARM OUR ABILITY TO COMPETE AND THE RESULTS OF OUR OPERATIONS.

Our success will depend on our existing patents and licenses, and our ability to obtain additional patents in the future. We have been issued 44 patents and have filed an additional 49 patent applications in the United States, Canada, Europe, Australia and Japan. We license the composition,

manufacturing and use of Avicine in all fields except fertility regulation from The Ohio State University.

We cannot assure investors that our pending patent applications will result in patents being issued in the United States or foreign countries. In addition, we cannot guarantee that patents which have been or will be issued will afford meaningful protection for our technology and products. Competitors may develop products similar to ours which do not conflict with our patents. Others may challenge our patents and, as a result, our patents could be narrowed or invalidated. The patent position of biotechnology firms generally is highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the United States Patent and Trademark Office, or USPTO, or the courts regarding the breadth of claims allowed or the degree of protection afforded under biotechnology patents.

Our success will also depend partly on our ability to operate without infringing upon the proprietary rights of others, as well as our ability to prevent others from infringing on our proprietary rights. We may be required at times to take legal action to protect our proprietary rights and, despite our best efforts, we may be sued for infringing on the patent rights of others. Patent litigation is costly and, even if we prevail, the cost of such litigation could adversely affect our financial condition. If we do not prevail, in addition to any damages we might have to pay, we could be required to stop the infringing activity or obtain a license. We cannot be certain that any required license would be available to us on acceptable terms, or at all. If we fail to obtain a license, our business might be materially adversely affected.

To help protect our proprietary rights in unpatented trade secrets, we require our employees, consultants and advisors to execute confidentiality agreements. However, we cannot guarantee that these agreements will provide us with adequate protection if confidential information is used or disclosed improperly. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants or advisors have prior employment or consulting relationships. Further, others may independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to our trade secrets.

IF OUR RELATIONSHIP WITH SUPERGEN, INC. IS UNSUCCESSFUL, OUR BUSINESS COULD BE HARMED.

Our strategic relationship with SuperGen, Inc. is important to our success. We cannot assure you that we will receive any additional payments from SuperGen or that the relationship will be commercially successful. The transactions contemplated by our agreements with SuperGen, Inc., including the equity purchases and cash payments, are subject to numerous risks and conditions. For example, we may fail to achieve clinical and sales milestones; Avicine may fail to achieve regulatory approval; Avicine may not be commercially successful; SuperGen, Inc. may fail to perform its obligations under our agreements, such as failing to devote sufficient resources to marketing Avicine; and our agreements with SuperGen, Inc. may be terminated against our will. The occurrence of any of these events could severely harm our business.

WE HAVE LIMITED SALES CAPABILITY AND MAY NOT BE ABLE TO SUCCESSFULLY COMMERCIALIZE OUR PRODUCTS.

We have been engaged solely in the development of pharmaceutical technology. Although some of our management have experience in biotechnology company operations, we have limited experience in manufacturing or selling pharmaceutical products. We also have only limited experience in negotiating and maintaining strategic relationships, and in conducting clinical trials and other later-stage phases of the regulatory approval process. We cannot assure investors that we will successfully engage in any of these activities.

WE MAY BE SUBJECT TO PRODUCT LIABILITY LAWSUITS AND OUR INSURANCE MAY NOT BE ADEQUATE TO COVER DAMAGES.

The use of our products will expose us to the risk of product liability claims. Although we intend to obtain product liability insurance coverage, we cannot guaranty that product liability insurance will continue to be available to us on acceptable terms or that our coverage will be sufficient to cover all claims against us. A product liability claim, even one without merit or for which we have substantial coverage, could result in significant legal defense costs, thereby increasing our expenses, lowering our earnings and, depending on revenues, potentially resulting in additional losses.

CONTINUING EFFORTS OF GOVERNMENT AND THIRD-PARTY PAYERS TO CONTAIN OR REDUCE THE COSTS OF HEALTH CARE MAY ADVERSELY AFFECT OUR REVENUES AND FUTURE PROFITABILITY.

In addition to obtaining regulatory approval, the successful commercialization of our products will depend on our ability to obtain reimbursement for the cost of the product and treatment. Government authorities, private health insurers and other organizations, such as health maintenance organizations are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed health care in the United States, the growth of healthcare organizations such as HMOs, and legislative proposals to reform healthcare and government insurance programs could significantly influence the purchase of healthcare services and products, resulting in lower prices and reducing demand for our products. The cost containment measures that healthcare providers are instituting and any healthcare reform could affect our ability to sell our products and may have a material adverse effect on our operations. We cannot assure investors that reimbursement in the United States or foreign countries will be available for any of our products, that any reimbursement granted will be maintained, or that limits on reimbursement available from third-party payors will not reduce the demand for, or the price of, our products. The lack or inadequacy of third-party reimbursements for our products would have a material adverse effect on our operations. We cannot forecast what additional legislation or regulation relating to the healthcare industry or third-party coverage and reimbursement may be enacted in the future, or what effect the legislation or regulation would have on our business.

IF WE FAIL TO ESTABLISH STRATEGIC RELATIONSHIPS WITH LARGER PHARMACEUTICAL PARTNERS, OUR BUSINESS MAY SUFFER.

We do not intend to conduct late-stage or Phase III human clinical trials ourselves. We anticipate entering into relationships with larger pharmaceutical companies to conduct later pharmaceutical trials and to market our products and we also plan to continue to use contract manufacturing for our products. We may be unable to enter into corporate partnerships. Lack of corporate partnerships could impede our ability to bring our products to market. We cannot assure investors that any corporate partnerships, if entered, will be on favorable terms or will result in the successful development or marketing of our products. If we are unsuccessful in establishing advantageous clinical testing, manufacturing and marketing relationships, we are not likely to generate significant revenues and become profitable.

RISKS RELATED TO SHARE OWNERSHIP

OUR RIGHT TO ISSUE PREFERRED STOCK, OUR CLASSIFIED BOARD OF DIRECTORS AND OREGON ANTI-TAKEOVER LAWS MAY PREVENT YOU FROM REALIZING A PREMIUM.

Our authorized capital consists of 50,000,000 shares of common stock and 2,000,000 shares of preferred stock. Our board of directors, without any further vote by the shareholders, has the authority to issue preferred shares and to determine the price, preferences, rights and restrictions, including voting and dividend rights, of these shares. The rights of the holders of shares of common stock may be

affected by the rights of holders of any preferred shares that our board of directors may issue in the future. For example, our board of directors may allow the issuance of preferred shares with more voting rights, higher dividend payments or more favorable rights upon dissolution, than the shares of common stock. If preferred shares are issued in the future, it may also be more difficult for others to acquire a majority of our outstanding voting shares.

In addition, we have a "classified" board of directors, which means that only one-half of our directors are eligible for election each year. Therefore,

if shareholders wish to change the composition of our Board of Directors, it could take at least two years to remove a majority of the existing directors or to change all directors. Having a classified board of directors may, in some circumstances, deter or delay mergers, tender offers or other possible transactions which may be favored by some or a majority of our shareholders.

The Oregon Control Share Act and Business Combination Act limit parties who acquire a significant amount of voting shares from exercising control over us. These acts may lengthen the period for a proxy contest or for a person to vote their shares to elect the majority of our Board.

OUR STOCK PRICE IS VOLATILE AND MAY FLUCTUATE DUE TO FACTORS BEYOND OUR CONTROL.

Historically, the market price of our stock has been highly volatile. The following types of announcements could have a significant impact on the price of our common stock: positive or negative results of testing and clinical trials; delays in entering into corporate partnerships; technological innovations or commercial product introductions by ourselves or competitors; changes in government regulations; developments concerning proprietary rights, including patents and litigation matters; public concern relating to the commercial value or safety of any of our products; general stock market conditions.

Further, the stock market has in recent months experienced and may continue to experience significant price and volume fluctuations. These fluctuations have particularly affected the market prices of equity securities of many biopharmaceutical companies that are not yet profitable. Often, the effect on the price of such securities is unrelated or disproportionate to the operating performance of such companies. These broad market fluctuations may adversely affect the ability of a shareholder to dispose of his or her shares at a price equal to or above the price at which the shares were purchased.

THE SIGNIFICANT NUMBER OF OUR SHARES OF COMMON STOCK ELIGIBLE FOR FUTURE SALE MAY CAUSE THE PRICE OF COMMON STOCK TO FALL.

As of May 31, 2000, we have outstanding 16,711,757 shares of common stock and all are eligible for sale under Rule 144 or are otherwise freely tradable, except for 2,857,147 shares of common stock, which are not be freely tradable, until we file a registration statement on such shares. The timing of the effectiveness of this registration statement is uncertain. In addition:

- Our employees and others hold options to buy a total of 2,442,528 shares of common stock as of May 31, 2000. The shares of common stock to be issued upon exercise of these options, have been registered, and therefore may be freely sold when issued.

- There are outstanding warrants to buy 5,433,463 shares of common stock as of May 31, 2000. The shares issuable upon exercise of 4,416,814 warrants are registered. These shares may be freely sold when issued. The holders of warrants covering 400,000 shares have incidental registration rights to have the shares issuable upon the exercise of their warrants registered. Once registered, those shares may be freely sold when issued, for so long as the registration statement is effective and current. The remaining warrants have no registration rights.

- We may issue options to purchase up to an additional 531,036 shares of common stock under our stock option plans as of May 31, 2000, which also will be fully saleable when issued.

- Upon the closing of our alliance with SuperGen, Inc., we will issue to SuperGen, Inc. an additional 1,684,211 shares of our common stock and a warrant to purchase additional shares totalling up to 10% of the then-outstanding shares of our common stock.

Sales of substantial amounts of shares into the public market could lower the market price of our common stock.

WE HAVE GRANTED CERTAIN RIGHTS TO SUPERGEN, INC. WHICH COULD NEGATIVELY IMPACT YOUR INVESTMENT.

We have granted SuperGen, Inc. a warrant to purchase shares of our common stock so that upon its exercise SuperGen, Inc. could own up to 25% of our outstanding common stock, when aggregated with SuperGen's present holdings of our common stock. If SuperGen exercises its warrant, the stock ownership of our

other stockholders will be diluted and SuperGen, Inc. may have significant influence over us. SuperGen Inc.'s right to exercise this warrant, and its share ownership after exercise, may discourage other parties from acquiring us.

FORWARD-LOOKING STATEMENTS

The statements which are not historical facts contained in this discussion are forward-looking statements that involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the results of pre-clinical 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 our Securities and Exchange Commission filings.

COMMON STOCK MARKET PRICE DATA

Our common stock is traded on the Nasdaq National Market under the symbol "AVII." The following table shows, for the periods indicated, the high and low sale prices per share of our common stock as reported on the Nasdaq National Market from the time of our initial public offering, June 3, 1997.

	HIGH	LOW
1997		
Second Quarter (from June 3, 1997)	$ 7.25	$5.75
Third Quarter	7.50	6.44
Fourth Quarter	9.50	6.69
1998		
First Quarter	$ 7.82	$5.75
Second Quarter	8.00	5.62
Third Quarter	6.31	2.62
Fourth Quarter	5.19	2.50
1999		
First Quarter	$ 4.09	$2.47
Second Quarter	5.00	2.94
Third Quarter	5.88	3.00
Fourth Quarter	7.94	2.88
2000		
First Quarter	$27.25	$5.31

The last reported sale price of our common stock on the Nasdaq National Market on June 15, 2000 was $12.19 per share. The approximate number of our shareholders of record as of May 31, 2000 was 598.

USE OF PROCEEDS

The net proceeds from the sale of the 3,000,000 shares of common stock we are offering, based on an assumed offering price of $12.00 per share, are estimated to be $33.1 million, or $38.1 million if Paulson Investment Company, Inc. exercises its over-allotment option is exercised in full, after deducting the underwriting discount of $2.6 million, or $3.0 million if the over-allotment option is exercised in full, and our offering expenses of $300,000.

We intend to use the estimated net proceeds from this offering as follows:

	APPROXIMATE AMOUNT	APPROXIMATE PERCENTAGE
Avicine clinical trials	$ 7,000,000	21%
NeuGene clinical trials	9,000,000	27%
Pre-clinical R&D	7,000,000	21%
Manufacturing leasehold improvements	2,000,000	6%
Working capital and general purposes	8,090,000	25%

Total offering proceeds.....	$33,090,000	100%

The cost, timing and amount of funds required for such uses by us cannot be precisely determined at this time and will be based on the demand for manufacturing capacity, competitive developments, the rate of our progress in research and development, the results of pre-clinical studies and clinical trials, the timing of regulatory approvals, determination of the commercial potential of our product candidates, the rate at which operating losses are incurred, payments under collaboration agreements, availability of alternate methods of financing and other factors beyond our control.

We may also use some of the net proceeds to invest in or acquire other companies, technologies or products that complement our business, although we do not currently have any agreements to do so. We have not yet determined with any certainty the manner in which we will allocate the net proceeds. The amounts and timing of these expenditures will vary depending on a number of factors, including the amount of cash generated by our operations, competitive and technological developments, and the rate of growth, if any, of our business. Pending these uses, the net proceeds of this offering will be invested in short-term, interest-bearing securities. Our board of directors has broad discretion in determining how the net proceeds of this offering will be applied.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We intend to retain earnings from operations for use in the operation and expansion of our business and do not anticipate paying cash dividends with respect to our common stock in the foreseeable future.

CAPITALIZATION

The following table shows:

- The capitalization of AVI as of March 31, 2000; and
- The capitalization of AVI as of March 31, 2000, assuming the completion of this offering, at the assumed public offering price of $12.00 per share, after deducting the underwriting discount and other estimated expenses of this offering.

The "as adjusted" number excludes 7,803,265 shares of our common stock reserved for issuance under outstanding options and warrants. The "as adjusted" number also excludes 1,684,211 shares of our common stock issuable to SuperGen, Inc., upon the closing of our alliance for the shared development and marketing of Avicine and shares equaling up to 10% of our common stock issuable upon the exercise of a warrant issuable to SuperGen, Inc.

The capitalization information contained in this table should be read in conjunction with the more detailed Financial Statements and the Notes to Financial Statements included elsewhere in this prospectus.

	MARCH 31, 2000	
	ACTUAL	AS ADJUSTED
	(IN THOUSANDS)	
Cash and investments.....	$ 14,380	$ 47,470
Shareholders' equity:		
Preferred Stock, $.0001 par value; 2,000,000 shares authorized, none issued and outstanding.....		
Common Stock, $.0001 par value; 50,000,000 shares authorized, 16,658,784 shares issued and outstanding, actual; 19,658,784 shares issued and outstanding, as adjusted.....	2	2
Additional paid-in capital.....	65,313	98,403
Accumulated other comprehensive income.....	1,903	1,903

Deficit accumulated during the development stage.....	(52,194)	(52,194)
Total shareholders' equity.....	15,024	48,144
Total capitalization.....	$ 15,024	$ 48,144

DILUTION

Our net tangible book value as of March 31, 2000, was approximately $14,174,562, or $.85 per share of common stock. Net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of our common stock.

The dilution in our pro forma net tangible book value per share represents the difference between the per share amount paid for shares sold in this offering, and the net tangible book value per share immediately after completion of this offering. After giving effect to the sale of 3,000,000 shares of common stock in this offering at an assumed public offering price of $12.00 per share, and deducting the anticipated underwriting discount and estimated offering expenses payable by us, our pro forma net tangible book value would have been $47,264,562, or $2.40 per share, at March 31, 2000. This will represent an immediate increase in our net tangible book value of $1.55 per share to existing stockholders and an immediate dilution or reduction in the net tangible book value of $9.60 per share to investors purchasing common stock in this offering. These changes are illustrated in the following table:

Initial public offering price per common share.....		$12.00
Net tangible book value per share at March 31, 2000.....	$ .85	
Increase per share attributable to new investors.....	$1.55	
Net tangible book value per common share after this offering.....		$ 2.40
Dilution per common share to new investors.....		$ 9.60

The following table compares the number of shares that will be owned by our existing shareholders, together with the effective prices they paid for such shares, with the number of shares to be purchased and the prices that will be paid for such shares in this offering, assuming that the offering price per share will be $12.00:

	SHARES PURCHASED(1)		TOTAL CONSIDERATION		AVERAGE PRICE PAID PER SHARE
	NUMBER	PERCENT	AMOUNT	PERCENT	
Existing shareholders.....	16,658,784	85%	$ 65,315,173	64%	$ 3.92
New investors.....	3,000,000	15%	36,000,000	36%	$12.00
Total.....	19,658,784	100%	$101,315,173	100%	

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(1) The number of shares excludes a total of 7,803,265 shares that will be issuable on exercise of currently outstanding warrants and stock options that are exercisable at a weighted average price of $10.20 per share. To the extent that these options are exercised, there will be further dilution to new investors.

SELECTED FINANCIAL DATA

The selected financial data shown below should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements. We have derived the statement of operations

data for years ended December 31, 1995 and 1996 and the balance sheet data as of December 31, 1995, 1996 and 1997 from audited financial statements not included in this prospectus. We have derived the statement of operations data for the three years ended December 31, 1999, the period from July 22, 1980 to December 31, 1999 and the balance sheet data as of December 31, 1998 and 1999 from our audited financial statements included elsewhere in this prospectus. We have derived the statement of operations data for the periods from July 22, 1980 to March 31, 1999 and 2000, and the three-month periods ended March 31, 1999 and 2000 and the balance sheet data as of March 31, 2000 from our unaudited interim financial statements included elsewhere in this prospectus. Historical results do not necessarily predict the results to be expected for any future period.

(IN THOUSANDS, EXCEPT PER SHARE DATA)	YEARS ENDED DECEMBER 31, 1995	1996	1997	1998	1999	JULY 22, 1980 (INCEPTION) TO DECEMBER 31, 1999
STATEMENT OF OPERATIONS DATA:						
Revenues	$ 83	$ 27	$ 14	$ 120	$ 17	$ 841
Research and development	(2,098)	(1,729)	(2,737)	(6,307)	(6,672)	(24,728)
General and administrative	(610)	(614)	(1,282)	(1,621)	(1,745)	(9,199)
Acquired in-process R&D	--	--	--	(19,473)	(72)	(19,545)
Other income	68	229	389	547	194	1,576
Net loss	$(2,557)	$(2,087)	$(3,616)	$(26,734)	$(8,278)	$(51,054)
Net loss per share--basic & diluted	$ (0.37)	$ (0.25)	$ (0.36)	$ (2.27)	$ (0.62)	--
Cash flow from operations	$(1,779)	$(1,608)	$(3,006)	$ (6,736)	$(7,561)	$(26,751)

(IN THOUSANDS, EXCEPT PER SHARE DATA)	THREE MONTHS ENDED MARCH 31, 1999	2000	JULY 22, 1980 (INCEPTION) TO MARCH 31, 2000
	(UNAUDITED)		(UNAUDITED)
STATEMENT OF OPERATIONS DATA:			
Revenues	$ 4	$ 1,132	$ 1,973
Research and development	(1,343)	(1,936)	(26,664)
General and administrative	(418)	(436)	(9,635)
Acquired in-process R&D	(60)	--	(19,545)
Other income	77	101	1,677
Net loss	$(1,739)	$(1,140)	$(52,194)
Net loss per share--basic & diluted	$ (0.13)	$ (0.07)	--
Cash flow from operations	$(1,622)	$(1,417)	$(28,168)

	DECEMBER 31, 1995	1996	1997	1998	1999	MARCH 31, 2000
						(UNAUDITED)
BALANCE SHEET DATA:						
Cash and investments	$ 894	$3,041	$17,639	$ 8,510	$11,621	$14,380
Working capital	647	2,739	17,194	7,833	10,612	13,662
Total assets	2,325	4,249	18,782	10,192	12,930	15,791
Shareholders' (deficit) equity	(1,051)	796	18,318	9,006	11,889	15,024

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(1) Amounts relate to acquired in-process research and development expenses incurred in connection with the acquisition of ImmunoTherapy Corporation.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

YOU SHOULD READ THE FOLLOWING DISCUSSION AND ANALYSIS TOGETHER WITH OUR FINANCIAL STATEMENTS AND THE NOTES TO FINANCIAL STATEMENTS INCLUDED ELSEWHERE IN THIS PROSPECTUS. RESULTS OF OPERATIONS FOR THE PERIODS DISCUSSED BELOW DO NOT NECESSARILY PREDICT THE RESULTS TO BE EXPECTED IN ANY FUTURE PERIOD. THE FOLLOWING DISCUSSION AND ANALYSIS CONTAINS STATEMENTS AND ANALYSES CONCERNING THE FUTURE THAT ARE FORWARD-LOOKING STATEMENTS. THESE FORWARD-LOOKING STATEMENTS

ARE SUBJECT TO RISKS AND UNCERTAINTIES, AND OUR ACTUAL RESULTS OF OPERATIONS MAY DIFFER MATERIALLY FROM THESE FORWARD-LOOKING STATEMENTS.

OVERVIEW

From our inception in 1980, we have devoted our resources primarily to fund our research and development efforts. We have been unprofitable since inception and, other than limited interest and grant revenues, we have had no material revenues from the sale of products or from other sources, and we do not expect material revenues for at least the next 12 months. We expect to continue to incur losses for the foreseeable future as we expand our research and development efforts. As of March 31, 2000, our accumulated deficit was $52,193,759.

RESULTS OF OPERATIONS

THREE MONTHS ENDED MARCH 31, 1999 COMPARED WITH THREE MONTHS ENDED MARCH 31, 2000. Revenues, from license fees, grants and research contracts, increased from $4,115 in the first quarter of 1999 to $1,131,873 in the first quarter of 2000 due to the receipt and recognition of a $1,000,000 fee for expansion of a license for diagnostic applications, and receipts under an existing grant of $131,873. During the first quarter of 2000, we modified an existing agreement with the Anti-Gene Development Group, or AGDG. Under our previous agreement with AGDG, AGDG had a non-exclusive, royalty bearing right to use certain technology in the development of diagnostics and an obligation to pay royalties on any sales resulting from this development. The agreement modification resulted in AGDG having an exclusive right to the technology and having no future royalty obligation to us. In consideration for this modification, we received a $1 million license fee and a reduction in future royalties to be paid to AGDG resulting from the sale of therapeutic products. The $1 million was recognized as license fee revenue during the period ended March 31, 2000.

Operating expenses increased from $1,820,113 in the first quarter of 1999 to $2,372,536 in the first quarter of 2000 due to increases in research and development staffing and increased expenses associated with outside collaborations and pre-clinical and clinical testing of our technologies. Additionally, increased general and administrative costs were incurred to support the research expansion, and to continue to broaden our investor and public relations efforts. Net interest income increased from $76,539 in the first quarter of 1999 to $100,781 in the first quarter of 2000 due to earnings on increased cash balances.

YEAR ENDED DECEMBER 31, 1998 COMPARED WITH YEAR ENDED DECEMBER 31, 1999. Operating expenses decreased from $27,401,395 in 1998 to $8,489,392 in 1999 principally due to a one-time charge of $19,473,154 for acquired in-process research and development reflecting the acquisition of ImmunoTherapy Corporation or ITC in September 1998 offset by increases in research and development staffing and increased expenses associated with outside collaborations and pre-clinical testing of our technologies. Additionally, increased general and administrative costs were incurred to support the research expansion. Net interest income decreased from $547,081 in 1998 to $193,927 in 1999 due to smaller earnings on decreased cash balances.

YEAR ENDED DECEMBER 31, 1997 COMPARED WITH YEAR ENDED DECEMBER 31, 1998. Operating expenses increased from $4,019,386 in 1997 to $27,401,395 in 1998 principally due to a one-time charge of $19,473,154 for acquired in-process research and development reflecting the acquisition of ITC and

increases in research and development staffing and increased expenses associated with outside collaborations and pre-clinical testing of our technologies. In connection with the purchase price allocation for ITC, we estimated the fair value of the intangible assets which indicated that the majority of all of the acquired intangible assets consisted of research and development projects in process. At that time, the development of these projects had not reached technological feasibility and the technology was believed to have no alternative future use. In accordance with generally accepted accounting principles, the acquired in-process research and development has been reflected in the accompanying financial statements. We currently believe that the research and development efforts may result in commercially feasible products after at least 36 months and at an additional estimated cost of at least $10 million. Additionally, increased general and administrative costs were incurred to support the research expansion, and to broaden our investor and public relations

efforts due to our change in status to a public company in mid-1997. Net interest income increased from $389,051 in 1997 to $547,081 in 1998 due to earnings on increased cash balances, which consisted of net proceeds from the initial public offering.

LIQUIDITY AND CAPITAL RESOURCES

We have financed our operations since inception primarily through equity sales totaling $44,374,198 and license fees, grants and contract research funding of $1,973,090 from various sources. Our cash and cash equivalents were $9,580,282 at March 31, 2000, compared with $8,683,005 at December 31, 1999. The increase of $897,277 was due primarily to the exercise of options and warrants during the first quarter of 2000 and the $1,000,000 license fee, offset by increases in research and development staffing and increased expenses associated with outside collaborations and pre-clinical and clinical testing of our technologies. In addition, the value of the Company's short-term securities increased $1,862,500 to $4,800,000 at March 31, 2000 due to unrealized gains in the value of these securities.

In December 1999, we completed a private offering with institutional investors and an equity sale to a prospective corporate partner. In the private offering, 1,857,147 shares of our common stock and 628,573 warrants to purchase our common stock at $4.025 per share were issued. Substantially all of the warrants issued in connection with the private placement are currently exercisable and expire in five years. We received net proceeds of $5,808,003 from the offering. In the equity sale to the prospective corporate partner, 1,000,000 shares were issued in exchange for net proceeds of $5,247,000 in cash and securities including 100,000 shares of the prospective corporate partner's common stock. Subsequent to December 31, 1999, the shares received from the prospective corporate partner were registered for public resale and have no restrictions.

Our future expenditures and capital requirements will depend on numerous factors, including without limitation, the progress of our research and development programs, the progress of our pre-clinical and clinical trials, the time and costs involved in obtaining regulatory approvals, the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights, competing technological and market developments, our ability to establish collaborative arrangements and the terms of any such arrangements, and the costs associated with commercialization of our products. Our cash requirements are expected to continue to increase each year as we expand our activities and operations. There can be no assurance, however, that we will ever be able to generate product revenues or achieve or sustain profitability.

We expect that our cash requirements over the next 24 months will be satisfied by existing cash resources. We will continue to look for opportunities to finance our ongoing activities and operations through accessing corporate partners or the public equity markets, as we currently have no credit facility, nor do we intend to seek one.

EFFECT OF INFLATION

Inflation did not materially affect our business during the last several years.

YEAR 2000

The year 2000 issue resulted from computer programs operating incorrectly when the calendar year changed to January 1, 2000. Computer programs that have date-sensitive software may have recognized a two-digit date using "00" as calendar year 1900 rather than the year 2000. This could result in system failure or miscalculations and could cause disruptions of operations, including, among other things, a temporary inability to engage in normal business activities.

We have evaluated our technology and data, including imbedded non-informational technology, used in the creation and development of our products and services and in our internal operations and have experienced no significant year 2000 issues. The core business systems are compliant. We have not incurred material costs and we believe that future costs associated with addressing the year 2000 issue will have an immaterial effect on our financial results.

Although we inquired of certain of our significant vendors as to the status of their year 2000 compliance initiatives, no binding assurances were received. We believe that parts and services used in normal operations can be obtained from multiple sources and therefore we are not overly reliant on any single vendor.

BUSINESS

CLINICAL DEVELOPMENT OVERVIEW

We are a biopharmaceutical company developing therapeutic products based on cancer immunotherapy and NeuGene antisense technology for the treatment of life-threatening diseases, with initial applications in cancer and cardiovascular restenosis. Currently approved drugs or other therapies often prove to be ineffective in treating advanced stages of these diseases or produce numerous undesirable side effects. Our core technologies are specifically aimed at meeting these challenges. We currently have products at various stages of clinical development as summarized below.

PRODUCT	PRE-CLINICAL	PHASE I	PHASE II	PHASE III
CANCER IMMUNOTHERAPY				
Avicine ..... Vaccine for colorectal cancer	Completed 1993	Completed 1995	Completed 1998	Planned 2000
Avicine ..... Vaccine for pancreatic cancer	Completed 1994	Completed 1995	Completed 1998; another in progress 2000	
Avicine ..... Vaccine for prostate cancer	Completed 1995	Completed 1995	Planned 2000	
Xactin ..... Human monoclonal antibodies	In progress 2000			
NEUGENE ANTISENSE				
Resten-NG ..... Antisense drug for restenosis	Completed 1999	Completed 2000	Planned 2000	
Oncomyc-NG ..... Antisense drug for cancer	Completed 1999	Completed 2000	Planned 2000	
NeuBiotics ..... Antisense antibiotics	In progress 2000	Planned 2001		

BUSINESS STRATEGY

Our strategy is to:

- reduce risk associated with product development by exploiting two core technology platforms;
- select disease targets with broad or multiple disease applications;
- manage drug discovery, pre-clinical and early stage clinical development in-house; and
- co-develop or license products to strategic partners after completion of Phase II clinical trials to enhance value and share the costs of Phase III trials and commercialization.

CANCER IMMUNOTHERAPY

Cancer is the second leading cause of death in the United States with an incidence of 1,500 deaths per day. There are approximately eight million Americans living with a history of cancer, and 500,000 new cases are diagnosed annually. Lung, prostate, breast and colorectal cancers are the four most common

types of cancer, accounting for over 50% of all new diagnoses. In 1999, the market opportunities for drugs to treat each of these cancer types were estimated to be in excess of $1 billion annually.

About half of newly diagnosed cancer patients have localized disease and can be cured with surgery alone. The other half of the patients either have metastatic disease at diagnosis or will eventually develop metastatic disease. The principal therapy available for the second group of patients traditionally has been chemotherapy. Chemotherapeutic approaches produce considerable toxic and undesirable side effects and historically have done little to influence patient survival.

Immunotherapy with vaccines or antibodies is among the newer strategies being investigated for treating cancer. Historically, vaccines were developed and used to induce an immune response in order to prevent a disease. In contrast, therapeutic vaccines are administered when the patient already has the disease. Treatment of rabies with the rabies vaccine is an example of this approach.

For a therapeutic vaccine to be effective in fighting a disease such as cancer, it is necessary to first identify specific target sites on the tumor cells, called tumor antigens. The more selective the target is to the tumor, the greater the likelihood that the stimulated immune response will be directed at attacking only the cancer cells. The identification of highly specific targets has been one of the greatest challenges in the development of a useful cancer vaccine.

AVICINE THERAPEUTIC CANCER VACCINE

TECHNICAL OVERVIEW

Avicine, our therapeutic cancer vaccine, is designed to produce an immune response against a well-characterized target, human chorionic gonadotropin, or hCG. hCG is a hormone produced during pregnancy that fosters the development of a fetus in several ways. Through extensive research, scientists found that hCG is also present in most cancers. In fact, cancer is believed to be the only significant exception to normal hCG expression during pregnancy. Given the selective production of hCG in cancer, we believe it represents a highly specific target for a therapeutic cancer vaccine.

The use of hCG as a cancer vaccine target may offer the following advantages over other potential tumor antigens:

- hCG is not usually found on normal cells, with the exception of those present during a pregnancy. This means that it is highly selective.

- hCG is widely expressed by and found on many types of cancer, including colon, pancreas, prostate, lung and breast.

- hCG expression has been correlated with tumor aggressiveness. In other words, the higher the level of hCG, the more aggressive the rate of growth or spread of the cancer.

- Antibodies to hCG are believed to block the hormonal functions that hCG plays in pregnancy and cancer, including rapid cell division, formation of blood vessels, invasion of other tissues, and dampening of immune responses.

Because hCG is a natural human protein, people will not mount an immune response to it unless they are actively immunized. We believe that the mechanism of action of our anti-hCG vaccine is to stimulate an immune response against the tumor and to neutralize the hormonal affects provided by hCG.

The hCG component in Avicine is a small peptide from this hormone. The peptide is joined to a carrier, diphtheria toxoid, to enhance the immune response. Diphtheria toxoid was selected since most of the world's population has been vaccinated against it and there is significant experience with it as a vaccine component in man.

Avicine's distinguishing characteristics include:

- Fully characterized synthetic vaccine;

- Capable of being produced inexpensively in large quantities;

- Targets a widely expressed tumor antigen, hCG;

- Ready for Phase III clinical testing in colorectal cancer patients;

- Applicable to most cancer types in multiple clinical settings; and

- Twenty years of research and development and safety data.

AVICINE CLINICAL TRIAL PROGRAM

PHASE I CLINICAL TRIALS: We have completed three Phase I clinical trials using Avicine in 87 patients with cancer. Overall, these studies showed Avicine to be safe and essentially non-toxic, and to be effective in stimulating an immune response to hCG in most patients. Moreover, apparent survival benefits and some tumor regressions were noted.

COLORECTAL CANCER TRIALS: We conducted a multicenter Phase II study of Avicine was conducted in 77 patients with advanced colorectal cancer. The objectives of this trial were to determine whether administration of Avicine would induce an immune response in patients with metastatic colorectal cancer, and to measure safety and efficacy in these patients. Overall, 51 of the 77 patients responded to our vaccine by producing antibodies to hCG. The patients that were antibody responders had a median survival of 42 weeks. Patients who did not respond had a median survival of just 17 weeks.

Analysis of the Phase II data showed that patients who produced antibodies to both targets on the hCG peptide had a median survival of 66 weeks. Camptosar, the current standard of care for treating advanced colorectal cancer patients, produces a median survival of 37-40 weeks. Through additional research efforts, we have learned how to stimulate production of antibodies to both hCG targets in most patients by reformulating the vaccine.

Overall, these clinical data suggest that the patients who received Avicine and responded by making hCG antibodies had improved median survival compared to patients treated with chemotherapeutic drugs. Avicine was found to be safe and did not exhibit the toxicity associated with cytotoxic drug treatment. Based on these data, we plan to initiate a Phase III pivotal trial in 500 patients with metastatic colorectal cancer in 2000. This trial randomizes patients receiving first-line therapy for metastatic colorectal cancer to one of two treatments: combination chemotherapy or combination chemotherapy plus Avicine. The trial will be evaluated by comparing time-to-disease progression and median survival in the two treatments.

PANCREATIC AND PROSTATE CANCER TRIALS: We have completed a pilot Phase II study using Avicine in 10 patients with advanced pancreatic cancer. For the 10 patients treated, the median survival was approximately 33 weeks. Patients with advanced pancreatic cancer are currently treated with chemotherapy and have a median survival of approximately 18 to 25 weeks. We believe these results are encouraging enough to warrant the design of additional trials in pancreatic cancer. A Phase II study of 50 patients with pancreatic cancer was initiated in October 1999, and patient enrollment should be completed in 2000. In addition, we plan to initiate a Phase II clinical trial involving 24 patients with prostate cancer in 2000 to broaden our clinical applications to other types of cancer.

AVICINE CLINICAL TRIAL SUMMARY

TRIAL	DESCRIPTION & TYPE	PATIENTS	STATUS
1	Phase I safety study	43 treated	Completed
2	Phase I metastatic cancer	21 treated	Completed
3	Phase Ib metastatic cancer	23 treated	Completed
4	Phase II pancreatic and extension	10 treated	Completed
5	Phase II colorectal	77 treated	Completed
6	Phase II pancreatic	50	In progress
7	Phase II prostate	24	2000

8	Phase III colorectal licensing trial.....	500	2000

XACTIN--HUMAN MONOCLONAL ANTIBODIES FOR CANCER

Antibodies are important proteins produced by the immune system and serve as the first line of defense against foreign pathogens. Antibodies bind to these pathogens and help neutralize or eliminate these foreign substances.

Historically, most antibody product candidates were generated in mice and, as a result, contained mouse protein. The presence of mouse protein in these antibodies causes undesirable side effects in patients receiving the products. Various approaches have evolved to engineer mouse antibodies so that they contain mostly human proteins and thus produce fewer side effects in patients. The XenoMouse technology that we licensed from Abgenix, Inc. enables the rapid generation of antibodies with fully human proteins. The XenoMouse has been genetically engineered to replace the genes that a mouse uses to make antibodies with the genes that humans use to make antibodies. XenoMouse-generated antibodies have several potential advantages over traditional therapies, including:

- Faster product development;

- Fewer undesirable side effects; and

- An extended therapeutic effect.

There are now eight therapeutic antibody products marketed in the United States, six of which were approved in the past three years. Moreover, industry analysts estimate that antibodies account for over 20% of all biotechnology products in clinical development today.

From our cancer vaccine clinical trials, we learned which anti-hCG antibodies are important in prolonging patient survival. We have produced human monoclonal antibodies to these hCG targets using the Abgenix technology. These monoclonal antibodies, called Xactin antibodies, are both potential companion products to Avicine and independent cancer therapeutics and are now in pre-clinical development.

NEUGENE ANTISENSE TECHNOLOGY

TECHNICAL OVERVIEW

Most human diseases arise from the function or dysfunction of genes within the body, either those of pathogens, such as viruses, or of one's own genes. The Human Genome Project has led to the identification of the genes associated with most of the major human diseases and to the determination of the sequence of their genetic codes. Using modern methods of chemical synthesis, compounds can be prepared that recognize target gene sequences in a pathogen or pathogenic process. When these compounds bind tightly to the disease-causing sequence, the genetic process is inhibited, and thus the pathogen or pathogenic process is disabled. This is called antisense technology because the sense of the genetic code is blocked.

Antisense compounds are composed of repeating structures, or subunits, that are linked together forming a polymer, referred to as the antisense backbone. Each subunit carries a genetic letter that pairs with its corresponding letter in the gene target. Although the genetic letters are a feature common to all antisense compounds, the structure of the subunits and the linkage groups that string them together may differ greatly. These differences in the subunits and the linkages define the different types of antisense backbones and their corresponding physical and biological properties. Our NeuGene technology is distinguished from all other antisense technologies by the characteristics of our patented antisense backbone. The subunits which carry the genetic letters on our backbone are synthetic products rather than modified natural materials. In addition, the linkages used to string the subunits together carry no charge in our backbone. We believe these differences provide pharmaceutical advantages that are critical for antisense drug development to meet the challenges of broad clinical utility.

The first antisense compounds had backbones composed of natural genetic materials and linkages. These natural compounds were degraded or broken down by enzymes in the blood and within cells and had difficulty crossing cellular

membranes to enter the cells that contained their genetic target. Researchers developed modified backbones which were designed to resist degradation by enzymes and to enter tissues and cells more efficiently. The most common of these types, the phosphorothioate backbones used by ISIS Pharmaceuticals, Inc., Genta, Incorporated, and others, use natural DNA subunits linked together by a charged linkage. After extensive investigation, we concluded that these early product candidates lacked the pharmaceutical properties desirable for broad clinical utility. We abandoned development of similar structures in 1988 and started development of a novel backbone chemistry designed to address these drawbacks.

NEUGENE TECHNOLOGY

We have developed and patented a new class of antisense compounds, known as NeuGenes, which have a backbone of synthetic subunits carrying each genetic letter, with each subunit linked together by a patented uncharged linkage group. We believe our principal competitive advantage in the antisense area is the chemical structure of the NeuGene backbone that we developed specifically to have the following pharmaceutical properties:

- STABILITY: Biological stability is principally determined by the degree of resistance to enzymatic degradation. Because the NeuGene backbone is a unique synthetic structure, there are no enzymes found in man to degrade it. Our NeuGene drugs have been shown to be completely stable in our human clinical trials.

- EFFICACY AND SPECIFICITY: Efficacy refers to the efficiency with which antisense compounds block selected gene targets. In direct comparisons with other technologies, our NeuGene compounds exhibited significantly better efficacy in inhibition of targeted genetic sequences and substantially greater specificity.

- DELIVERY: To reach their targets, antisense compounds must cross tissue and cellular barriers, including cellular and nuclear membranes. Our extensive research in the last three years has shown that NeuGene antisense compounds achieve functional delivery in a variety of animal models and in human clinical trials.

- SAFETY: Our Phase I human clinical trial results indicate that NeuGene antisense agents have an excellent safety profile, even at doses in vast excess of those anticipated for our initial human therapeutic applications.

NEAR-TERM PRODUCT DEVELOPMENT--RESTENOSIS AND CANCER

The first application of our antisense technology is designed to treat diseases involving abnormal cell division, such as cancer and certain cardiovascular and inflammatory diseases, including restenosis, psoriasis, polycystic kidney disease and chronic graft rejection. The NeuGene target for these diseases is the genetic component named c-myc. We have finished pre-clinical development of two NeuGene drugs, Resten-NG and Oncomyc-NG, based on this target. In late 1999, we filed an Investigational New Drug Application, or IND, and initiated a Phase I clinical trial for restenosis and cancer. These Phase I safety studies in 32 patients completed in April 2000 showed these compounds to be safe and essentially non-toxic.

In our upcoming Phase II clinical trial, Resten-NG will be used to block c-myc expression in restenosis, a frequent complication that follows balloon angioplasty for coronary artery disease. Restenosis, the blockage of the arteries following balloon angioplasty, affects 100,000 to 200,000 people per year in the United States and its occurrence is unpredictable. We believe Resten-NG, with its combination of potency and lack of toxicity, may be useful as a preventative measure in the more than one million balloon angioplasty procedures performed worldwide each year.

Pre-clinical studies with Resten-NG indicated that it was both more potent and less toxic than other antisense agents currently in clinical development for other indications. Our trials also indicated significant preservation of vessel passageways and prevention of arterial wall thickening following catheter delivery of Resten-NG. We expect to commence Phase II human clinical trials involving 150 patients in cardiovascular restenosis in mid-2000.

We are finishing pre-clinical development of our second NeuGene drug,

Oncomyc-NG, for cancer indications. We plan to initiate Phase I/II trials for our first cancer indication later this year.

The broad applicability of our antisense platform has allowed us to initiate pre-clinical development of NeuGene drugs for viral, bacterial, and inflammatory diseases, as outlined in the following table.

NEUGENE ANTISENSE DEVELOPMENT PROGRAM

ANTISENSE TARGET	CLINICAL INDICATION
c-myc	Restenosis, cancer, psoriasis, chronic graft rejection
Cytochrome P450	Metabolic redirection of cancer drugs
NF kappa B	Crohn's Disease, chronic inflammation, autoimmune disorders, arthritis, septic shock, asthma
Bacterial ribosomes	NeuBiotics for infectious diseases
Hepatitis B, C viruses	Hepatitis

COLLABORATIVE AGREEMENTS

We believe that our vaccine and antisense technologies are broadly applicable for the potential development of pharmaceutical products in many therapeutic areas. To exploit our core technologies as fully as possible, our strategy is to enter into collaborative development agreements with strategic partners, including major pharmaceutical companies, for cancer applications for Avicine, and agreements directed at specific molecular targets for our NeuGene antisense technology.

SUPERGEN ALLIANCE

In April 2000, we entered into an alliance with SuperGen, Inc. for shared development and marketing rights for Avicine. Under the terms of the agreement, SuperGen and we will share equally clinical development and Food and Drug Administration, or FDA, registration costs going forward and share profit equally from product sales in the United States with SuperGen. We will be responsible for the manufacturing of Avicine and SuperGen will be responsible for marketing and sales. Closing of the transaction will occur prior to the effectiveness of this offering. Upon closing, we will receive a $20 million equity investment from SuperGen and could receive additional payments of up to $80 million based upon achievement of commercialization milestones.

ABGENIX ALLIANCE

We currently have an alliance with Abgenix, Inc. for the development of human monoclonal antibodies for cancer. We have licensed the use of Abgenix XenoMouse technology for the production of human monoclonal antibodies against hCG. Our Avicine clinical trials have defined the hCG targets that are important in prolonging patient survival. We have developed human monoclonal antibodies to these targets and two of them are now in pre-clinical trials. Abgenix is to receive payments based on achievement of clinical development milestones and a royalty on sales if our antibodies are commercialized.

NEUGENE ALLIANCES

We anticipate that NeuGene antisense collaborative research agreements may provide us with funding for internal programs aimed at discovering and developing antisense compounds to inhibit the production of additional molecular targets. Partners in antisense may be granted options to obtain licenses to co-develop and to market drug candidates resulting from their collaborative research programs. We currently have a research alliance with XTL Biopharmaceuticals Ltd. for pre-clinical development of Hepatitis B and C antisense drugs. If this program moves into clinical development stages, XTL and we will negotiate a joint venture development and marketing agreement with XTL under basic terms previously set forth.

We plan to market the initial products for which we obtain regulatory

approval, through co-development and marketing arrangements with strategic partners or other licensing arrangements with larger pharmaceutical companies. Implementation of this strategy will depend on many factors, including the market potential of any products we develop and our financial resources. We do not expect to establish a direct sales capability for therapeutic compounds for at least the next several years. The timing of our entry into marketing arrangements or other licensing arrangements will depend on successful product development and regulatory approval within the regulatory framework established by the Federal Food, Drug and Cosmetics Act. Although the implementation of initial aspects of our marketing strategy may be undertaken before this process is completed, the development and approval process typically is not completed in less than three to five years after the filing of an IND application and our marketing strategy therefore may not be implemented for several years.

MANUFACTURING

For our vaccine, we have identified potential Good Manufacturing Practices, or GMP, manufacturers who could meet large scale, low-cost manufacturing requirements for future Phase III trials and commercial introduction. We have developed proprietary manufacturing techniques that will allow large-scale, low-cost synthesis and purification of NeuGenes. Because our NeuGene compounds are based upon a flexible backbone chemistry, we believe that NeuGene synthesis will be more cost-effective than competing technologies. We have established sufficient manufacturing capacity to meet research and development and pre-clinical requirements.

We currently intend to retain manufacturing rights for all products incorporating our patented antisense technology, whether sold directly by us or through collaborative agreements with industry partners. We have contracted with a GMP facility to produce our near term NeuGene products for pre-clinical and clinical trial studies. We are currently upgrading our in-house manufacturing capability to meet GMP standards for Phase I and II human clinical trials.

Our laboratory facility and procedures have not been formally inspected by the FDA and will have to be approved as products move from the research phase through the clinical testing phase and into commercialization. We will be required to comply with GMP in connection with human clinical trials and commercial production.

PATENTS AND PROPRIETARY RIGHTS

We own 44 patents covering various aspects of our technologies. We have 49 pending applications relating to Avicine, NeuGene, and other technologies. Our patents cover composition of matter, genetic targets, and use of our technologies in broad medical applications. We intend to protect our proprietary technology with additional filings as appropriate.

We have also acquired certain product/technology licenses from The Ohio State University and Dr. Vernon Stevens. These properties include exclusive royalty-bearing licenses covering the composition, manufacturing and use of Avicine in all fields of use, including treating and preventing cancer, with the exception of fertility regulation. We have the right to commercialize any new intellectual property relating to our licensed subject matter including access and use of all new experimental data resulting from Dr. Stevens' research. Our licenses have been granted for a period of 30 years or 10 years from the expiration of the last issued patent, whichever comes later. Under these licensing agreements, we have the right to sublicense our products and technology throughout the world.

The proprietary nature of, and protection for, our product candidates, processes and know-how are important to our business. We plan to prosecute and aggressively defend our patents and proprietary technology. Our policy is to patent the technology, inventions and improvements that are considered important to the development of our business. We also depend upon trade secrets, know-how, and continuing technological innovation to develop and maintain our competitive position.

DRUG APPROVAL PROCESS AND OTHER GOVERNMENT REGULATION

The United States system of new drug approvals is the most rigorous in the world. According to the Pharmaceutical Research and Manufacturers of America, it costs an average of $500 million and takes an average of almost 15 years from the discovery of a compound to bring a single new pharmaceutical to market. For

every 5,000 to 10,000 chemically synthesized molecules screened, only 250 are ever issued an Investigational New Drug Application, or IND, and tested in humans. Of those, the FDA will approve only one for commercialization. Yet, in recent years, societal and governmental pressures have created the expectation that biotech and pharmaceutical companies will reduce the costs for drug discovery and development without sacrificing safety, efficacy and innovation. The need to significantly improve or provide alternative strategies for successful pharmaceutical discovery, research and development remains a major health care industry challenge.

DRUG DISCOVERY: In the initial stages of drug discovery before a compound reaches the laboratory, tens of thousands of potential compounds are randomly screened for activity against an assay assumed to be predictive for particular disease targets. This drug discovery process can take several years. Once a company locates a screening lead, or starting point for drug development, isolation and structural determination may begin. The development process results in numerous chemical modifications to the screening lead in an attempt to improve its drug properties. After a compound emerges from the above process, the next steps are to conduct further preliminary studies on the mechanism of action, further

in vitro test tube screening against particular disease targets and, finally, some in vivo or animal screening. If the compound passes these barriers, the toxic effects of the compound are analyzed by performing preliminary exploratory animal toxicology. If the results are positive, the compound emerges from the basic research mode and moves into the pre-clinical phase.

PRE-CLINICAL TESTING: During the pre-clinical testing stage, laboratory and animal studies are conducted to show biological activity of the compound against the targeted disease, and the compound is evaluated for safety. These tests typically take approximately three and one-half years to complete.

INVESTIGATIONAL NEW DRUG APPLICATION: During the pre-clinical testing, an IND is filed with the FDA to begin human testing of the drug. The IND becomes effective if not rejected by the FDA within 30 days. The IND must indicate the results of previous experiments, how, where and by whom the new studies will be conducted, the chemical structure of the compound, the method by which it is believed to work in the human body, any toxic effects of the compound found in the animal studies and how the compound is manufactured. In addition, an Institutional Review Board, comprised of physicians at the hospital or clinic where the proposed studies will be conducted, must review and approve the IND. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA.

PHASE I CLINICAL TRIALS: After an IND becomes effective, Phase I human clinical trials can begin. These tests, involving usually between 20 and 80 patients or healthy volunteers, typically take approximately one year to complete. The Phase I clinical studies also determine how a drug is absorbed, distributed, metabolized and excreted by the body, and the duration of its action.

PHASE II CLINICAL TRIALS: In Phase II clinical trials, controlled studies are conducted on approximately 100 to 300 volunteer patients with the targeted disease. The purpose of these tests is to evaluate the effectiveness of the drug on the volunteer patients as well as to determine if there are any side effects. These studies generally take approximately two years, and may be conducted concurrently with Phase I clinical trials. In addition, Phase I/II clinical trials may be conducted to evaluate not only the efficacy of the drug on the patient population, but also its safety.

PHASE III CLINICAL TRIALS: This phase typically lasts about three years and usually involves 1,000 to 3,000 patients. During the Phase III clinical trials, physicians monitor the patients to determine efficacy and to observe and report any reactions that may result from long-term use of the drug.

NEW DRUG APPLICATION: After the completion of all three clinical trial phases, if the data indicate that the drug is safe and effective, a New Drug Application, or NDA, is filed with the FDA. The NDA must contain all of the information on the drug gathered to that date, including data from the clinical trials. NDAs are often over 100,000 pages in length. The average NDA review time for new pharmaceuticals is now between 6 and 12 months.

MARKETING APPROVAL: If the FDA approves the NDA, the drug becomes available

for physicians to prescribe. Periodic reports must be submitted to the FDA, including descriptions of any adverse reactions reported. The FDA may request additional Phase IV studies to evaluate long-term effects.

PHASE IV CLINICAL TRIALS AND POST-MARKETING STUDIES: In addition to studies requested by the FDA after approval, these trials and studies are conducted to explore new indications. The purpose of these trials and studies and related publications is to broaden the application and use of the drug and its acceptance in the medical community.

COMPETITION

Companies developing cancer vaccines include Progenics Pharmaceutical, Inc., Corixa Corporation, Biomira Inc., and Bristol Meyers-Squibb. Their products are in late stage clinical development, in

patients with cancers of different types than Avicine is being used to treat. We believe that Avicine will have broader patient applications than other cancer vaccines in development due to the characteristics of its target. Moreover, we do not expect any company to introduce a cancer vaccine into the broad commercial market in the immediate future.

Several companies are pursuing the development of antisense technology, including Genta, Incorporated, Hybridon, Inc., ISIS Pharmaceuticals, Inc., and Lorus Therapeutics Inc. All of these companies have products in development stages, and, in some cases, are in human trials with antisense compounds generally similar to our NeuGene compounds. ISIS Pharmaceuticals has received marketing approval from the FDA for an antisense drug to treat a viral infection of the eye in patients with AIDS. While we believe that none of these companies is likely to introduce an additional antisense compound into the broad commercial market in the immediate future, many pharmaceutical and biotechnology companies have financial and technical resources greater than those currently available to us. Moreover, some potential competitors have more established collaborative relationships with industry partners than we do. We believe that the combination of pharmaceutical properties of our NeuGene compounds for restenosis and cancer affords us competitive advantages when compared with the antisense compounds of competitors.

We can also expect to compete with other companies exploiting alternative technologies that address the same therapeutic needs as do our technologies. The biopharmaceutical market is subject to rapid technological change, and it can be expected that competing technologies will emerge and will present a competitive challenge to us.

EMPLOYEES

As of May 31, 2000, we had 56 employees, 23 of whom hold advanced degrees. Fifty employees are engaged directly in research and development activities, and six are in administration. None of our employees is covered by collective bargaining agreements, and we consider relations with our employees to be good.

PROPERTIES

We occupy 27,000 square feet of leased laboratory and office space at 4575 S.W. Research Way, Suite 200, Corvallis, Oregon 97333. The lease on our space expires in December 2007. Our executive office is located in 2,400 square feet of leased space at One S.W. Columbia, Suite 1105, Portland, Oregon 97258. This lease expires in July 2001. We believe that our facilities are suitable and adequate for our present operational requirements for the foreseeable future.

LEGAL PROCEEDINGS

We are not aware of any legal proceedings against us that, individually or in the aggregate, would have a material advserse effect on our business, results of operations or financial condition.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

Our executive officers and directors are as follows:

NAME	AGE	POSITION
Denis R. Burger, Ph.D.	57	Chief Executive Officer and Chairman of the Board
Alan P. Timmins	40	President, Chief Operating Officer and Director
Gordon W. Duncan, Ph.D.	67	Vice President of Regulatory Affairs and Clinical Development
Patrick L. Iversen, Ph.D.	45	Senior Vice President of Research and Development and Director
Mark M. Webber	45	Chief Financial Officer
Dwight D. Weller, Ph.D.	49	Senior Vice President of Chemistry and Manufacturing and Director
Nick Bunick	64	Director
Bruce L.A. Carter, Ph.D.	55	Director
John W. Fara, Ph.D.	57	Director
James B. Hicks, Ph.D.	53	Director
Joseph Rubinfeld, Ph.D.	67	Director

DENIS R. BURGER, PH.D. has served as our Chief Executive Officer since January 1996, as our Chairman of the Board since 1998. From 1992 until May 2000, he served as our President and from 1992 until 1995 as our Chief Operating Officer. Dr. Burger has also been a member of Sovereign Ventures, LLC, a biotechnology consulting and merchant banking venture, since 1991. Dr. Burger is a member of the Board of Directors of SuperGen, Inc. and Trinity Biotech, PLC. Dr. Burger received a B.A. in Bacteriology and Immunology from the University of California, Berkeley, and his M.S. and Ph.D. degrees in Microbiology and Immunology from the University of Arizona.

ALAN P. TIMMINS has served as our President and Chief Operating Officer since May 2000, as our Chief Operating Officer since 1996, and as a director since 1997. He served as our Executive Vice President and Chief Financial Officer from 1992 until May 2000. Mr. Timmins received a B.B.A. in Accounting and Management from the University of Portland and an M.B.A. from Stanford University. He is a Certified Public Accountant.

GORDON W. DUNCAN, PH.D. has served as our Vice President of Regulatory Affairs and Clinical Development of AVI since 1997. From 1991 to 1996, he was Vice President for Research and a Director of ProCyte Corporation, and previously served as Vice President for Administration of Upjohn Laboratories (now part of Pharmacia and Upjohn) for more than 20 years. He is a founding and current director of the Program for Appropriate Technology in Health, a Senior Project Officer with the Concept Foundation, and the Executive Vice President and Chief Operating Officer for Women's Capital Corporation. Dr. Duncan received a B.S. in Animal Husbandry from Cornell University and an M.S. and Ph.D. in Physiology from Iowa State University.

PATRICK L. IVERSEN, PH.D. has served as our Senior Vice President of Research and Development and a director since 1997. From 1987 through 1997, Dr. Iversen was on staff at the University of Nebraska Medical Center, most recently as a Professor in the College of Medicine. Dr. Iversen, who has published extensively on antisense research and development, additionally served as a consultant to various pharmaceutical and biotechnology companies, including GLAXO Inc., Innovir Pharmaceuticals, Lynx Therapeutics, and Isis Pharmaceuticals, as well as to AVI, and he is a former member of the Leukemia Society of America Board of Directors. Dr. Iversen holds a B.S. in Biology from Westminster

College and a Ph.D. in Biochemical Pharmacology and Toxicology from the University of Utah, followed by post-doctoral work at the Eppley Institute for Research in Cancer and Allied Diseases.

MARK M. WEBBER has served as our Chief Financial Officer since May 2000 and as our Controller since October 1997. From 1993 to 1997, he was Director of Finance for Pacific Rehabilitation and Sports Medicine, Inc. Mr. Webber holds a B.S. degree in accounting from the University of Oregon.

DWIGHT D. WELLER, PH.D. has served as our Senior Vice President of Chemistry

and Manufacturing since 1997, and as a director of AVI since 1991. He served as our Vice President of Research and Development of AVI from 1992 to 1997. Dr. Weller received a B.S. in Chemistry from Lafayette College and a Ph.D. in Chemistry from the University of California at Berkeley, followed by postdoctoral work in Bio-Organic Chemistry at the University of Illinois.

NICK BUNICK has served as a director since 1992. Mr. Bunick is the President and Chairman of the Board of three real estate development companies and one investment management company. Mr. Bunick received a B.S. in Business Administration and Marketing from the University of Florida.

BRUCE L. A. CARTER, PH.D. has been a director of AVI since 1998. From 1997 to 1998, Dr. Carter was a director of ImmunoTherapy Corporation and a member of its Science Advisory Board from 1996 to 1998. He is Executive Vice President and Chief Science Officer of Novo Nordisk A/S in Copenhagen, Denmark and Seattle, Washington and President and CEO of ZymoGenetics, Inc. of Seattle, a wholly owned Novo Nordisk subsidiary, a position he also held from 1988 through 1993. Dr. Carter serves on several Boards of Directors, including Virginia Mason Hospital Research Center, Anergen, Inc., as well as Novo Nordisk A/S and ZymoGenetics, Inc. Dr. Carter received his Ph.D. in Microbiology from the University of London, where he was a member of Queen Elizabeth College. In 1996 he was elected to the Faculty of the University of Washington as Associate Professor of BioChemistry.

JOHN W. FARA, PH.D. has served as a director of AVI since May 2000. He served as the President and Chief Executive Officer of Depot Med, Inc. a biopharmaceutical company, since 1996, and as its Chairman of the Board since April 2000. Between 1990 and 1996, he served as President and Chief Executive Officer of Avergen, Inc., a biotechnology company, and was President of Prototek, Inc., an early state pharmaceutical development company. Dr. Fara holds a B.S. in Biology from the University of Wisconsin and a Ph.D. in physiology from the University of California at Los Angeles.

JAMES B. HICKS, PH.D. has served as a director of AVI since 1997. He has served as the Chief Executive Officer, Chief Scientist and a director of Hedral Therapeutics, Inc., a biotechnology company, since its founding in 1993. Dr. Hicks received his B.A. degree in Biology from Willamette University and his Ph.D. in Molecular Biology from the University of Oregon, followed by post-doctoral research at Cornell University.

JOSEPH RUBINFELD, PH.D. has served as a director of AVI since 1996. He has served as Chief Executive Officer, President, Chief Scientific Officer and a director of SuperGen, Inc. since its inception in 1991. He received his B.S. in Chemistry from C.C.N.Y., and his M.A. and Ph.D. degrees in Chemistry from Columbia University.

BOARD OF DIRECTORS

We currently have eight directors, who serve until the expiration of their term or until their successor is duly elected or appointed. Our articles of incorporation and bylaws provide that if the number of directors is fixed at six or more, our directors are divided into two classes and serve for terms of two years, with one class being elected by the shareholders each year. Drs. Burger, Carter and Iversen and Mr. Bunick will serve until our 2001 annual meeting and Drs. Hicks, Rubinfeld and Weller and Mr. Timmins will serve until our 2002 annual meeting.

BOARD COMMITTEES

Our executive committee currently consists of Drs. Burger and Weller and Mr. Timmins. The compensation committee currently consists of Drs. Carter and Hicks. The compensation committee reviews and makes recommendations regarding our compensation policies and all forms of compensation to be provided to our executive officers and directors, including annual salaries, bonuses, stock options and other incentive compensation agreements. The compensation committee also administers our 1992 Stock Incentive Plan and our 2000 Employee Stock Purchase Plan.

The audit committee currently consists of Drs. Carter and Hicks. The audit committee reviews and monitors our corporate financial reporting and external audits, including our internal control functions, the results and scope of the annual audit and other services provided by our independent auditors and our compliance with legal matters that have a significant impact on our financial

reports. The audit committee also consults with our management and our independent auditors prior to the presentation of financial statements to shareholders and, as appropriate, initiates inquiries into aspects of our financial affairs.

DIRECTOR COMPENSATION

Our non-employee directors currently receive, at the time they commence service on our Board of Directors, a non-qualified option to purchase 33,334 shares of our common stock at the fair market value of the common stock on the date of grant, which vests over four years. In addition, each outside director receives $1,000 for each Board meeting attended in person. We reimburse Drs. Carter, Fara and Rubinfeld for their expenses to attend our Board meetings.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of the members of the compensation committee is currently, or has been at any time since the beginning of our last fiscal year, one of our officers or employees. Dr. Burger serves as a member and chairman of the Compensation Committee of SuperGen, Inc., of which our director Dr. Rubinfeld is Chief Executive Officer and Chairman of the Board. During the fiscal year ended December 31, 1999, none of our other executive officers served as a member of the board of directors or compensation committee of any entity that has one or more officers serving as a member of our board of directors or compensation committee.

EXECUTIVE COMPENSATION

SUMMARY OF CASH AND CERTAIN OTHER COMPENSATION

The following table provides certain summary information concerning the compensation of our Chief Executive Officer and each of our three other most highly compensated executive officers, or the named executive officers, for the fiscal years ending December 31, 1999, 1998 and 1997.

		ANNUAL COMPENSATION		LONG-TERM COMPENSATION	
NAME AND PRINCIPAL POSITION	YEAR	SALARY	BONUS	SECURITIES UNDERLYING OPTIONS/SARS	ALL OTHER COMPENSATION(1)
Denis R. Burger, Ph.D	1999	$250,400	--	--	$7,487
President and Chief Executive	1998	240,400	$25,000	200,000	7,250
Officer(2)	1997	216,650	25,000	100,000	3,558
Alan P. Timmins	1999	$185,400	--	--	$5,537
President, Chief Operating Officer and	1998	175,400	$25,000	135,000	4,662
Chief Financial Officer(2)	1997	130,400	25,000	50,000	2,265
Patrick L. Iversen, Ph.D	1999	$160,400	--	28,000	$4,787
Senior Vice President of Research and	1998	150,400	--	56,000	851
Development	1997	39,634	--	100,000	--
Dwight D. Weller, Ph.D	1999	$160,400	--	--	$4,787
Senior Vice President of Chemistry and	1998	150,400	--	84,000	3,925
Manufacturing	1997	130,817	--	50,000	2,412

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(1) 401(k) company match.

(2) Dr. Burger resigned as President effective May 11, 2000 and Mr. Timmins was appointed President effective May 11, 2000. Mr. Timmins resigned as Chief Financial Officer effective May 11, 2000.

OPTION GRANTS IN LAST FISCAL YEAR

The following table sets forth information concerning options granted to the named executives during the year ended December 31, 1999, under AVI

BioPharma, Inc.'s 1992 Stock Incentive Plan.

NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED(1)	PERCENT OF TOTAL OPTIONS GRANTED EMPLOYEES IN 1999	EXERCISE PRICE PER SHARE	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK APPRECIATION FOR OPTION TERM(2) 5%	10%
Patrick L. Iversen, Ph.D.....	28,000	20.64%	$3.69	01/21/2009	$65,047	$164,735

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(1) All options granted in 1999 for Dr. Iversen become exercisable starting 12 months after the grant date, with one-quarter of the options becoming exercisable at that time with an additional one-quarter of the options becoming exercisable on the second, third and fourth anniversary dates of the option grant, respectively.

(2) The amounts shown are hypothetical gains based on the indicated assumed rates of appreciation of our common stock compounded annually for a 10-year period. Actual gains, if any, on stock option exercises are dependent on the future performance of the common stock and overall stock market conditions. There can be no assurance that the common stock will appreciate at any particular rate or at all in future years.

OPTION EXERCISES AND HOLDINGS

The following table provides information, with respect to the named executive officers, concerning the exercise of options during the year ended December 31, 1999, and unexercised options held as of December 31, 1999. No options were exercised in 1999.

NAME	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT DECEMBER 31, 1999 EXERCISABLE	UNEXERCISABLE	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT DECEMBER 31, 1999(1) EXERCISABLE	UNEXERCISABLE
Denis R. Burger, Ph.D.....	599,068	66,667	$314,761	--
Alan P. Timmins.....	246,667	45,000	59,800	--
Patrick L. Iversen, Ph.D.....	78,000	106,000		$48,930
Dwight D. Weller, Ph.D.....	200,017	28,001	78,334	--

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(1) Represents the total gain which would be realized if all in-the-money options held at December 31, 1999 were exercised, determined by multiplying the number of shares underlying the options by the difference between the per share option exercise price and the fair market value of $5.4375 per share at December 31, 1999. An option is in-the-money if the fair market value of the underlying shares exceeds the exercise price of the option.

CERTAIN TRANSACTIONS AND RELATIONSHIPS

James E. Summerton, Ph.D., our former President and Chief Scientific Officer and a former director, is the general partner of a partnership called Anti-Gene Development Group, or AGDG.

On February 9, 1993, AGDG we entered into a Technology Transfer Agreement whereby effective May 19, 1993, AGDG conveyed to us all intellectual property in its control related to antisense technology. As part of the conveyance, we tendered to AGDG for liquidation all partnership units received under an exchange offer and received a 49.37% undivided interest in the intellectual property. We then purchased the remaining undivided interest in the intellectual property for future payments of 4.05% of gross revenues in excess of $200 million, if any, from sales of products by us which would, in the absence of the Technology Transfer Agreement, infringe a valid claim under any patent transferred to us. Our obligation to pay these technology fees with respect to a particular product terminates upon the expiration of all patents transferred to us pursuant to the Technology Transfer Agreement related to that product.

Under a License and Option Agreement between AGDG and us dated February 9, 1993, we granted to AGDG a royalty-free nonexclusive license to use the intellectual property for internal research and development and to sell small quantities of products incorporating the intellectual property. In addition, if AGDG develops any specific prototype products which incorporate any of the intellectual property, we have the right to commercialize and market the products for future payments of 4.05% of gross revenues, in excess of the $200 million exemption for all products utilizing the intellectual property, to AGDG. If we elect not to commercialize the proposed AGDG product or fail to meet certain product development milestones, we are required to grant AGDG a license to develop and market the proposed product. We are entitled to payments for the AGDG license but only if the proposed product incorporates patented improvements developed by us to the intellectual property. The amount of the license fee payable to us by AGDG for products sold is covered by the Technology Transfer Agreement. AGDG also has the right to obtain an exclusive royalty-free license to use, develop, make, sell, distribute and sublicense products utilizing the intellectual property at any time we have less than 10 full-time employees engaged in developing, testing or marketing products based upon the intellectual property for a period of at least 180 consecutive days.

In March 2000, AGDG and we amended the Technology Transfer Agreement to give to AGDG and Gene Tools LLC, a related organization of which Dr. Summerton is the primary shareholder, exclusive, non royalty-bearing rights to in vitro diagnostic applications of the intellectual property. In consideration for this amendment, Gene Tools paid us $1 million and reduced the royalty that we would pay to AGDG under the Technology Transfer Agreement on future sales of therapeutic products from 4.05% to 3.00%.

On June 8, 1998, we loaned $440,000 to Mr. Jeffrey L. Lillard, a former Vice President and a former director, to assist Mr. Lillard with his relocation to Portland, Oregon. The indebtedness of Mr. Lillard to us was fully paid on March 31, 1999.

In December 1999, we sold one million shares of our common stock to SuperGen, Inc., whose Chairman and Chief Executive Officer, Joseph Rubinfeld, Ph.D., sits on our Board of Directors. In exchange for the common stock, we received $2.5 million and 100,000 shares of SuperGen common stock. In connection with this transaction, we granted to SuperGen an exclusive negotiating period for certain rights to our Company's therapeutic cancer vaccine technology.

In April 2000, we entered into an alliance with SuperGen, Inc. for shared development and marketing rights for Avicine. Under the terms of the agreement, SuperGen and we will equally share future clinical development and FDA registration costs and equally share profit from Avicine sales in the United States. Closing of this transaction will occur prior to the effectiveness of this offering.

PRINCIPAL SHAREHOLDERS

The following table sets forth certain information regarding the ownership of our common stock as of May 31, 2000, with respect to:

- each person known by us to beneficially own more than 5% of the outstanding shares of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options and warrants currently exercisable, or exercisable within 60 days of May 31, 2000, are deemed beneficially owned and outstanding for computing the percentage of the person holding the securities, but are not considered outstanding for computing the percentage of any other person.

	SHARES BENEFICIALLY OWNED		
NAME AND ADDRESS OF BENEFICIAL OWNER(1)	NUMBER	PERCENT BEFORE OFFERING	PERCENT AFTER OFFERING
The Tail Wind Fund, Ltd.(2) Windermere House 404 East Bay Street P.O. Box SS-5539 Nassau, Bahamas	1,142,858	6.8%	5.8%
Joseph Rubinfeld, Ph.D.(3)(4) Two Annabel Lane #220 San Ramon, CA 94583	1,025,000	6.1%	5.2%
SuperGen, Inc.(4) Two Annabel Lane #220 San Ramon, CA 94583	1,000,000	6.0%	5.1%
Denis R. Burger, Ph.D.(5)	733,886	4.4%	3.7%
Dwight D. Weller, Ph.D.(6)	388,621	2.3%	2.0%
Alan P. Timmins(7)	298,958	1.8%	1.5%
Nick Bunick(8)	195,734	1.2%	*
Patrick L. Iversen, Ph.D.(9)	137,900	*	*
Bruce L.A. Carter, Ph.D.(10)	25,973	*	*
James B. Hicks, Ph.D.(11)	25,000	*	*
Gordon W. Duncan, Ph.D.(12)	23,540	*	*
Mark M. Webber(13)	12,709	*	*
All directors and officers as a group (10 persons)(14)	2,867,321	17.2%	14.5

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* Less than 1%.

(1) Unless otherwise indicated, the address of each person in this table is c/o AVI BioPharma, Inc., 1 SW Columbia, Suite 1105, Portland, Oregon 97258.

(2) Includes 214,286 shares subject to warrants exercisable within 60 days of May 31, 2000.

(3) Includes 1,000,000 shares held by SuperGen, Inc. in which Dr. Rubinfeld is Chairman of the Board and Chief Executive Officer. Also includes 25,000 shares subject to options held by Dr. Rubinfeld exercisable within 60 days of May 31, 2000.

(4) Excludes 1,684,211 shares of our common stock issuable upon the closing of our strategic alliance with SuperGen, Inc. to develop and market Avicine and a number of shares equal to up to 10% of our then-outstanding shares of common stock issuable upon the exercise of a warrant issuable to SuperGen, Inc. upon that closing.

(5) Includes 34,434 shares held by Sovereign Ventures, LLC, a limited liability

company in which Dr. Burger is a general partner. Also includes 534,161 shares subject to options exercisable within 60 days of May 31, 2000.

(6) Includes 247,634 shares held jointly or by others over which Dr. Weller exercises voting and investment power, 134,000 shares subject to options exercisable by Dr. Weller and 14,609 shares subject to options exercisable by Dr. Weller's spouse within 60 days of May 31, 2000.

(7) Includes 271,667 shares subject to options exercisable within 60 days of May 31, 2000.

(8) Includes 50,667 shares held jointly or by others over which Mr. Bunick exercises voting and investment power and includes 33,334 shares subject to options exercisable within 60 days of May 31, 2000.

(9) Includes 113,000 shares subject to options exercisable within 60 days of May 31, 2000.

(10) Includes 25,973 shares subject to options exercisable within 60 days of May 31, 2000.

(11) Includes 25,000 shares subject to options exercisable within 60 days of May 31, 2000.

(12) Includes 22,540 shares subject to options exercisable within 60 days of May 31, 2000.

(13) Includes 6,386 shares subject to options exercisable within 60 days of May 31, 2000.

(14) Includes 1,205,670 shares subject to options exercisable within 60 days of May 31, 2000.

DESCRIPTION OF SECURITIES

Our authorized capital consists of 50,000,000 shares of common stock, par value $0.0001 per share, and 2,000,000 shares of preferred stock, par value $0.0001 per share.

COMMON STOCK

We are authorized to issue 50,000,000 shares of common stock. As of May 31, 2000, 16,711,757 shares of common stock were outstanding and were held of record by approximately 598 shareholders. Holders of common stock are entitled to one vote for each share at all meetings of our shareholders. Subject to preferences of preferred stockholders, common stockholders are entitled to receive ratably dividends declared by our board. Common stockholders have no preemptive, subscription, redemption or conversion rights. If we are liquidated or dissolved, common stockholders would share equally in our assets remaining after the payment of all our liabilities and the liquidation preference of any preferred stockholders.

PREFERRED STOCK

Our Board of Directors is authorized to issue up to 2,000,000 shares of undesignated preferred stock. No shares of preferred stock have been issued. Our Board has the authority to issue preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions of the preferred stock, as well as fix the number of shares, without any further vote or action by the shareholders. Our Board, without shareholder approval, may issue preferred stock with voting and conversion rights superior to the voting rights of the common shares. The preferred stock may also decrease the amount of earnings and assets distributed to common stockholders. Issuance of preferred stock may delay or prevent a change in control.

WARRANTS

REPRESENTATIVE'S WARRANTS. On completion of this offering, we will issue stock purchase warrants that will entitle Paulson Investment Company, Inc., the representative of the underwriters for this offering, to purchase a number of shares of our common stock equal to 10% of the shares sold in this offering, exclusive of shares that may be sold pursuant to the underwriters' over-allotment option. The per share purchase price will be equal to 120% of the

per share public offering price set forth on the cover page of this prospectus. These warrants will be exercisable for a period of four years commencing one year after the date of this prospectus. We have granted Paulson Investment Company, Inc. certain registration rights which, if exercised, will enable it to sell the shares received upon exercise of its warrants without restriction, commencing as early as one year following the completion of this offering.

REPRESENTATIVES' WARRANTS. We issued 200,000 warrants to the representatives of the underwriters of our initial public offering to purchase 400,000 shares of our common stock. The representatives' warrants entitle the holders to acquire up to 200,000 units, each unit consisting of a share of common stock and a warrant to purchase a share of common stock for $10.80 per unit, and are exercisable until June 3, 2002. Each warrant initially entitles the holder to purchase one share of common stock at a price of $13.50. As of April 30, 2000, there were 142,500 representatives' warrants outstanding.

NASDAQ WARRANTS. We have outstanding warrants to purchase 2,300,000 shares of our common stock that were issued in our initial public offering and are traded on the Nasdaq National Market under the symbol "AVIIW." These warrants are exercisable until June 3, 2002. We may redeem them at a price of $0.25 per warrant if the closing bid price of our common stock has been at least 200% of the warrant exercise price for 20 consecutive trading days. The initial exercise price of these warrants is $13.50.

ITC MERGER WARRANTS. We have outstanding warrants to purchase 2,116,814 shares of our common stock that were issued in connection with our acquisition of ImmunoTherapy Corporation. These warrants are exercisable after September 15, 2000 and until May 15, 2003. We may redeem them at a price of $0.25 per warrant if the closing bid price of our common stock has been at least 200% of the exercise price for 20 consecutive trading days and the warrants have been exercisable. These warrants are traded on the Nasdaq National Market under the symbol "AVIIZ." The initial exercise price of these warrants is $13.50.

OTHER WARRANTS. In December 1999, we issued 628,573 warrants to purchase common stock at $4.025 per share in a private placement to five institutional investors and the placement agent. A total of 557,144 are exercisable until December 20, 2004 and 71,429 are exercisable after December 20, 2000 and until December 20, 2004. We have also issued additional warrants to purchase 45,576 shares of our common stock. These warrants are currently exercisable and 21,667 do not have a termination date and 23,909 will expire on June 3, 2000.

STOCK OPTIONS

A total of 3,200,000 shares of our common stock are reserved for issuance under our 1992 Stock Incentive Plan. As of May 31, 2000, we had outstanding 2,261,724 options to purchase shares under the 1992 Stock Incentive Plan.

In 1998, we assumed the obligations under the 1997 Stock Option Plan of ImmunoTherapy Corporation. As of May 31, 2000, 180,804 options to purchase shares of our common stock were outstanding under the 1997 plan.

EMPLOYEE STOCK PURCHASE PLAN

A total of 250,000 shares of our common stock have been reserved for issuance under our 2000 Employee Stock Purchase Plan. As of May 31, 2000, no shares had been issued under the plan.

RIGHTS OF CERTAIN SHAREHOLDERS TO ADDITIONAL STOCK OR REDEMPTION OF SHARES

Holders of 1,857,147 shares of our common stock have the right to receive additional shares of our common stock without additional payment to us if we sell shares of our common stock, or engage in similar financing transactions, at a price of less than $3.50 per share prior to December 16, 2002. If the holdings of our stock by the group that has this right will exceed 20 percent of our outstanding common stock due to the issuance of new shares, we must redeem a sufficient number of the new shares to be issued at a price equal to $3.85 per share so that the holdings of this group do not exceed 20 percent.

REGISTRATION RIGHTS

We are required to file a registration statement under the Securities Act covering the 2,116,814 shares of our common stock underlying the warrants that were issued in connection with our acquisition of ImmunoTherapy Corporation

prior to the date those warrants become exercisable, or September 15, 2000. Upon the filing of that registration statement and after September 14, 2000, a person will be able to sell any shares received upon the exercise of the warrants without restriction.

OREGON CONTROL SHARES AND BUSINESS COMBINATION STATUTES

We are subject to the Oregon Control Share Act. The Control Share Act generally provides that a person who acquires voting stock of an Oregon corporation in a transaction that results in the acquiring person holding more than 20.0%, 33.3% or 50.0% of the total voting power of the

corporation cannot vote the shares it acquires in the control share acquisition unless voting rights are accorded to the control shares by (1) a majority of each voting group entitled to vote and (2) the holders of a majority of the outstanding voting shares, excluding the control shares held by the acquiring person and shares held by our officers and inside directors. The terms acquiring person are broadly defined to include persons acting as a group.

The acquiring person may, but is not required to, submit to us a statement setting forth certain information about the acquiring person and its plans with respect to us. The statement may also request that we call a special meeting of shareholders to determine whether voting rights will be accorded to the control shares. If the acquiring person does not request a special meeting of shareholders, the issue of voting rights of control shares will be considered at the next annual meeting or special meeting of shareholders. If the acquiring person's control shares are accorded voting rights and represent a majority or more of all voting power, shareholders who do not vote in favor of voting rights for the control shares will have the right to receive the appraised "fair value" of their shares which may not be less than the highest price per share by the acquiring person for the control shares.

We are subject to certain provisions of the Oregon Business Corporation Act that govern business combinations between corporations and interested shareholders. The Business Combination Act generally provides that if a person or entity acquires 15% or more of the voting stock of an Oregon corporation, the corporation and the interested shareholder, or any affiliated entity of the interested shareholder, may not engage in certain business combination transactions for three years following the date the person became an interested shareholder. Business combination transactions for this purpose include (1) a merger or plan of share exchange, (2) any sale, lease, mortgage or other disposition of 10% or more of the assets of the corporation, and (3) certain transactions that result in the issuance of capital stock of the corporation to the interested shareholder. These restrictions do not apply if (1) the interested shareholder, as a result of the transaction in which such person became an interested shareholder, owns at least 85% of the outstanding voting stock of the corporation, disregarding shares owned by directors who are officers and certain employee benefit plans, (2) the Board of Directors approves the share acquisition or business combination before the interested shareholder acquires 15% or more of the corporation's outstanding voting stock or (3) the Board of Directors and the holders of at least two-thirds of the outstanding voting stock of the corporation, disregarding shares owned by the interested shareholders, approve the transaction after the interested shareholder acquires 15% or more of the corporation's voting stock.

TRANSFER AGENT

Our transfer agent and registrar is ChaseMellon Shareholder Services, LLC.

SHARES ELIGIBLE FOR FUTURE SALE

Our common stock is listed on the Nasdaq National Market under the symbol "AVII." Future sales of substantial amounts of our common stock in the public market, following this offering, could adversely affect prevailing market prices and our ability to raise additional capital at a time and price favorable to us.

Upon completion of this offering, we will have 19,711,757 shares of common stock outstanding, assuming no exercise of the over-allotment option granted to Paulson Investment Company, Inc. Of these shares, the 3,000,000 shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless they are purchased by our

"affiliates" as that term is used under the Securities Act of 1933, or the Securities Act. Of the 16,711,757 shares that will be held by our existing shareholders, a total of 13,967,514 are freely tradable without restriction. Of the remaining 2,744,243 shares, 1,661,651 are owned by officers or directors and will become eligible for sale 90 days after the date of this offering, but sales of such shares will be subject to certain volume limitations and manner of sale restrictions contained in Rule 144 under the Securities Act, which is summarized below. The remaining 1,082,592 shares are owned by former shareholders of ImmunoTherapy Corporation, which we acquired in 1998. These shares are subject to a lock-up which expires on September 15, 2000.

As a condition of this offering, all officers and directors will agree with the underwriters that they will not sell any common stock owned by them for a period of 90 days after the effective date of this offering without the prior written consent of Paulson Investment Company, Inc. A total of 1,661,651 shares of common stock will be subject to this 90-day lock-up. Upon the expiration of the 90-day lock-up period, or earlier upon the consent of Paulson Investment Company, Inc., those shares will become eligible for sale subject to the volume and other restrictions of Rule 144.

In general, under Rule 144, as currently in effect, beginning 90 days after the date of this prospectus, a person who has beneficially owned restricted shares for at least one year, including a person who may be deemed to be our affiliate, may sell within any three-month period a number of shares of common stock that does not exceed a specified maximum number of shares. This maximum is equal to the greater of 1% of the then outstanding shares of our common stock or the average weekly trading volume in the common stock during the four calendar weeks immediately preceding the sale. Sales under Rule 144 are also subject to restrictions relating to manner of sale, notice and availability of current public information about us. In addition, under Rule 144(k) of the Securities Act, a person who is not our affiliate, has not been an affiliate of ours within three months prior to the sale and has beneficially owned shares for at least two years would be entitled to sell such shares immediately without regard to volume limitations, manner of sale provisions, notice or other requirements of Rule 144.

OPTIONS AND WARRANTS

As of May 31, 2000, a total of 3,200,000 shares were reserved for issuance under our 1992 Stock Incentive Plan and we had outstanding 2,261,724 options to purchase shares under the 1992 Stock Incentive Plan. In 1998, we assumed the obligations of ImmunoTherapy Corporation under its 1997 Stock Option Plan. As of May 31, 2000, options to purchase 180,804 shares were outstanding under this plan. A total of 250,000 shares have been reserved for issuance under our 2000 Employee Stock Purchase Plan. As of May 31, 2000, no shares had been issued under the plan. We have filed, or will file prior to the effectiveness of this offering, registration statements on Form S-8 under the Securities Act covering all shares of common stock reserved for issuance under these plans.

We have outstanding warrants to purchase 5,433,463 shares of our common stock at initial exercise prices from $4.025 to $13.50 per share. A total of 3,142,144 of the shares of our common stock to be purchased on the exercise of these warrants are eligible for sale upon exercise. We intend to file a

registration statement under the Securities Act covering 2,116,814 shares of common stock underlying certain of the warrants.

On completion of this offering, we will issue stock purchase warrants that will entitle Paulson Investment Company, Inc., the representative of the underwriters for this offering, to purchase a number of our shares of common stock equal to 10% of the shares sold in this offering, exclusive of shares that may be sold pursuant to the underwriters' over-allotment option. The per share purchase price will be equal to 120% of the per share public offering price set forth on the cover page of this prospectus. These warrants will be exercisable for a period of four years commencing one year after the date of this prospectus. We have granted Paulson Investment Company, Inc. certain registration rights which, if exercised, will enable it to sell the shares received upon exercise of its warrants without restriction, commencing as early as one year following the completion of this offering.

UNDERWRITING

Paulson Investment Company, Inc. is acting as the representative of the underwriters. We and the underwriters named below have entered into an underwriting agreement with respect to the shares of our common stock being offered. In connection with this offering and subject to certain conditions, each of the underwriters named below has severally agreed to purchase, and we have agreed to sell, the number of shares set forth opposite the name of each underwriter.

UNDERWRITERS	NUMBER OF SHARES
Paulson Investment Company, Inc.	
I-Bankers Securities, Inc.	
Total	

The underwriting agreement provides that the underwriters are obligated to purchase all of the shares offered by this prospectus, other than those covered by the over-allotment option, if any shares are purchased. The underwriting agreement also provides that the obligations of the several underwriters to pay for and accept delivery of the shares are subject to the approval of certain legal matters by counsel and certain other conditions. These conditions include the requirements that no stop order suspending the effectiveness of the registration statement is in effect and that no proceedings for such purpose have been instituted or threatened by the Securities and Exchange Commission.

The representative has advised us that the underwriters propose to offer our shares to the public initially at the offering price set forth on the cover page of this prospectus and to selected dealers at such price less a concession of not more than $ per share. The underwriters and selected dealers may reallow a concession to other dealers, including the underwriters, of not more than $ per share. After completion of the initial public offering of the shares, the offering price, the concessions to selected dealers and the reallowance to their dealers may be changed by the underwriters.

The underwriters have informed us that they do not expect to confirm sales of ours shares offered by this prospectus to any accounts over which they exercise discretionary authority.

OVER-ALLOTMENT OPTION

Pursuant to the underwriting agreement, we have granted Paulson Investment Company, Inc. an option, exercisable for 45 days from the date of this prospectus, to purchase up to an additional 450,000 shares on the same terms as the shares being purchased by the underwriters from us. Paulson Investment Company, Inc. may exercise the option solely to cover over-allotments, if any, in the sale of the shares that the underwriters have agreed to purchase. If the over-allotment option is exercised in full, the total public offering price, underwriting discount and proceeds to us before offering expenses will be $, $ and $, respectively.

STABILIZATION AND OTHER TRANSACTIONS

Until the distribution of the shares offered by this prospectus is completed, rules of the Securities and Exchange Commission may limit the ability of the underwriters to bid for and purchase shares. As an exception to these rules, the underwriters may engage in transactions that stabilize the price of the shares. Paulson Investment Company, Inc., on behalf of the underwriters, may engage in over-allotment sales, stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934.

- Over-allotment involves syndicate sales in excess of the offering size, which creates a syndicate short position.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

- Syndicate covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover syndicate short positions. The underwriters may also elect to reduce any short position by exercising all or part of the over-allotment option to purchase additional shares as described above.

- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the shares originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions.

In general, the purchase of a security to stabilize or to reduce a short position could cause the price of the security to be higher than it might be otherwise. These transactions may be effected on the Nasdaq National Market or otherwise. Neither we nor the underwriters can predict the direction or magnitude of any effect that the transactions described above may have on the price of the shares. In addition, neither we nor the underwriters can represent that the underwriters will engage in these types of transactions or that these types of transactions, once commenced, will not be discontinued without notice.

INDEMNIFICATION

The underwriting agreement provides for indemnification between us and the underwriters against specified liabilities, including liabilities under the Securities Act, and for contribution by us and the underwriters to payments that may be required to be made with respect to those liabilities. We have been advised that, in the opinion of the Securities and Exchange Commission, indemnification for liabilities under the Securities Act of 1933 is against public policy as expressed in the Securities Act and is therefore unenforceable.

UNDERWRITERS' COMPENSATION

We have agreed to sell the shares to the underwriters at the initial offering price of $, less the 7.25% underwriting discount. The underwriting agreement also provides that upon the closing of the sale of the shares offered, Paulson Investment Company, Inc. will be paid a nonaccountable expense allowance equal to 2% of the gross proceeds from the sale of the shares offered by this prospectus, including the over-allotment option.

We have also agreed to issue warrants to the representative to purchase from us up to 300,000 shares at an exercise price per share equal to 120% of the offering price per share. These warrants are exercisable during the four-year period beginning one year from the date of effectiveness of the registration statement. These warrants, and the securities underlying the warrants, are not transferable for one year following the effective date of the registration, except to an individual who is an officer or partner of an underwriter, by will or by the laws of descent and distribution, and are not redeemable. These warrants will have registration rights. We will cause the registration statement to remain effective until the earlier of the time that all of the representative's warrants have been exercised and the date which is five years after the effective date of this offering. The common stock issued to the representative upon exercise of these warrants will be freely tradable.

The holders of the representative's warrants will have, in that capacity, no voting, dividend or other shareholder rights. Any profit realized by the representative on the sale of the shares issuable upon exercise of the representative's warrants may be deemed to be additional underwriting compensation. The shares underlying the representative's warrants are being registered on the registration statement. During the term of the representative's warrants, the holders thereof are given the opportunity to profit from a rise in the market price of our common stock. We may find it more

difficult to raise additional equity capital while the representative's warrants are outstanding. At any time at which the representative's warrants are likely to be exercised, we may be able to obtain additional equity capital on more favorable terms.

LOCK-UP AGREEMENTS

Our officers and directors have agreed that, for a period of 90 days from the date this registration statement becomes effective, they will not sell, contract to sell, grant any option for the sale or otherwise dispose of any of

our equity securities, or any securities convertible into or exercisable or exchangeable for our equity securities, other than through intra-family transfers or transfers to trusts for estate planning purposes, without the consent of Paulson Investment Company, Inc., as the representative of the underwriters, which consent will not be unreasonably withheld.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Ater Wynne LLP, Portland, Oregon, our counsel. Certain legal matters will be passed upon for the underwriters by Weiss Jensen Ellis & Howard, P.C., Portland, Oregon, counsel to the underwriters.

EXPERTS

The financial statements as of December 31, 1998 and 1999, for the three-year period ended December 31, 1999 and for the period from inception (July 22, 1980) to December 31, 1999 included in this registration statement have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their reports with respect thereto, and are included herein in reliance upon the authority of said firm as experts in giving said reports.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, or SEC. Our filings are available to the public over the Internet at the SEC's web site at "http://www.sec.gov." You can read and copy any document that we file with the SEC at the following public reference facilities:

Public Reference Room 450 Fifth Street, N.W. Room 1024 Washington, D.C. 20549	New York Regional Office 7 World Trade Center Suite 1300 New York, NY 10048	Chicago Regional Office Citicorp Center 500 West Madison Street Suite 1400 Chicago, IL 60661

You can also obtain copies of the documents at prescribed rates by writing to the SEC's Public Reference Section at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information on the operation of the SEC's public reference facilities. You also can inspect copies of our filings at The Nasdaq Stock Market at 1735 K Street, N.W., Washington, D.C. 20006.

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INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Annual financial statements of the Company and the Report of Arthur Andersen LLP, Independent Public Accountants, are included on the pages indicated:

Interim financial statements of the Company are included on the pages indicated:

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

TO THE BOARD OF DIRECTORS AND SHAREHOLDERS OF
AVI BIOPHARMA, INC.

We have audited the accompanying balance sheets of AVI BIOPHARMA, INC. (an Oregon corporation in the development stage) as of December 31, 1999 and 1998, and the related statements of operations, shareholders' equity and cash flows for the three years then ended and for the period from inception (July 22, 1980) to December 31, 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AVI BIOPHARMA, INC. as of December 31, 1999 and 1998, and the results of its operations and its cash flows for the three years then ended and for the period from inception (July 22, 1980) to December 31, 1999, in conformity with accounting principles generally accepted in the United States.

/s/ Arthur Andersen, LLP

Portland, Oregon
January 28, 2000

AVI BIOPHARMA, INC.
(A DEVELOPMENT STAGE COMPANY)

BALANCE SHEETS

	DECEMBER 31,	
	1999	1998
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 8,683,005	$ 8,510,020
Short-term securities--available-for-sale	2,937,500	--
Other current assets	31,242	509,428
Total Current Assets	11,651,747	9,019,448
Property and Equipment, net of accumulated depreciation and amortization of $2,518,494 and $2,386,310	403,303	411,828

Patent Costs, net of accumulated amortization of $418,268 and $305,310	844,731	730,960
Other Assets	29,847	29,847
Total Assets	$ 12,929,628	$ 10,192,083

LIABILITIES AND SHAREHOLDERS' EQUITY

Current Liabilities:		
Accounts payable	$ 727,673	$ 891,928
Accrued liabilities	312,481	294,471
Total Current Liabilities	1,040,154	1,186,399
Shareholders' Equity:		
Preferred stock, $.0001 par value, 2,000,000 shares authorized; none issued and outstanding	--	--
Common stock, $.0001 par value, 50,000,000 shares authorized; 16,236,428 and 13,346,166 issued and outstanding	1,624	1,335
Additional paid-in capital	62,901,227	51,779,785
Accumulated other comprehensive income	40,500	--
Deficit accumulated during the development stage	(51,053,877)	(42,775,436)
Total Shareholders' Equity	11,889,474	9,005,684
Total Liabilities and Shareholders' Equity	$ 12,929,628	$ 10,192,083

The accompanying notes are an integral part of these balance sheets.

AVI BIOPHARMA, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF OPERATIONS

	YEAR ENDED DECEMBER 31,			JULY 22, 1980 (INCEPTION) TO
	1999	1998	1997	DECEMBER 31, 1999
Revenues, from grants and research contracts	$ 17,024	$ 120,351	$ 14,345	$ 841,217
Operating expenses:				
Research and development	6,672,027	6,306,860	2,737,172	24,727,633
General and administrative	1,745,491	1,621,381	1,282,214	9,198,668
Acquired in-process research and development	71,874	19,473,154	--	19,545,028
	8,489,392	27,401,395	4,019,386	53,471,329
Other Income:				
Interest income, net	193,927	547,081	389,051	1,479,485
Realized gain on sale of short-term investments	--	--	--	96,750
	193,927	547,081	389,051	1,576,235
Net loss	$(8,278,441)	$(26,733,963)	$(3,615,990)	$(51,053,877)
Net loss per share--basic and diluted	$ (0.62)	$ (2.27)	$ (0.36)	
Weighted average number of common shares outstanding for computing basic and diluted loss per share	13,440,205	11,801,453	10,078,962	

The accompanying notes are an integral part of these statements.

(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF SHAREHOLDERS' EQUITY

	PARTNERSHIP UNITS	COMMON STOCK SHARES	COMMON STOCK AMOUNT	ADDITIONAL PAID-IN CAPITAL	ACCUMULATED OTHER COMPREHENSIVE INCOME	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	TOTAL SHAREHOLDERS' EQUITY
BALANCE AT JULY 22, 1980 (Inception)	$--	--	$--	$ --	$--	$ --	$ --
Issuance of partnership units, warrants and common stock...	3,615	5,972,916	598	15,715,254	--	--	15,715,852
Compensation expense related to issuance of warrants for common stock and partnership units.....	--	--	--	537,353	--	--	537,353
Exercise of warrants for partnership units and common stock.....	42	1,164,263	116	179,036	--	--	179,152
Conversion of debt into common stock and partnership units.....	9	9,634	1	87,859	--	--	87,860
Issuance of common stock in exchange for partnership units.....	(1,810)	1,632,950	163	(163)	--	--	--
Withdrawal of partnership net assets upon conveyance of technology.....	(1,856)	--	--	(176,642)	--	--	(176,642)
Common stock subject to rescission.....	--	(1,292,973)	(129)	(3,121,836)	--	--	(3,121,965)
Net loss.....	--	--	--	--	--	(12,425,483)	(12,425,483)
BALANCE AT DECEMBER 31, 1996.....	--	7,486,790	749	13,220,861	--	(12,425,483)	796,127
Exercise of warrants for common stock.....	--	50,000	5	5,010	--	--	5,015
Exercise of options for common stock.....	--	59,903	6	281,804	--	--	281,810
Issuance of common stock and warrants for cash, $9.00 per unit, net of offering costs.....	--	2,300,000	230	18,017,400	--	--	18,017,630
Reclassified upon completion of rescission offering.....	--	1,228,924	123	2,833,047	--	--	2,833,170
Net loss.....	--	--	--	--	--	(3,615,990)	(3,615,990)
BALANCE AT DECEMBER 31, 1997.....	--	11,125,617	1,113	34,358,122	--	(16,041,473)	18,317,762
Exercise of warrants for common stock.....	--	34,567	3	17,922	--	--	17,925
Exercise of options for common stock.....	--	35,990	4	166,944	--	--	166,948
Issuance of common stock and warrants for the acquisition of ImmunoTherapy Corporation.....	--	2,132,592	213	17,167,199	--	--	17,167,412
Issuance of common stock for consulting services, $4.00 per share.....	--	17,400	2	69,598	--	--	69,600
Net loss.....	--	--	--	--	--	(26,733,963)	(26,733,963)
BALANCE AT DECEMBER 31, 1998.....	--	13,346,166	$1,335	$51,779,785	$--	$(42,775,436)	$ 9,005,684
Exercise of warrants for common stock.....	--	16,667	2	3	--	--	5
Exercise of options for common stock.....	--	16,448	1	66,722	--	--	66,723
Issuance of common stock and warrants for cash and securities, net of offering costs.....	--	2,857,147	286	11,054,717	--	--	11,055,003
Unrealized gain on short-term securities-- available-for-sale.....	--	--	--	--	40,500	--	40,500
Net loss.....	--	--	--	--	--	(8,278,441)	(8,278,441)
BALANCE AT DECEMBER 31, 1999.....	--	16,236,428	$1,624	$62,901,227	$40,500	$(51,053,877)	$ 11,889,474

AVI BIOPHARMA, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31, 1999	1998	1997	FOR THE PERIOD JULY 22, 1980 (INCEPTION) TO DECEMBER 31, 1999
Cash flows from operating activities:				
Net loss.....	$(8,278,441)	$(26,733,963)	$(3,615,990)	$(51,053,877)

Adjustments to reconcile net loss to net cash flows used in operating activities:				
Depreciation and amortization	313,238	223,186	467,250	3,053,531
Realized gain on sale of short-term investments--available for sale	--	--	--	(96,750)
Compensation expense on issuance of common stock and partnership units	--	69,600	--	251,992
Compensation expense on issuance of options and warrants to purchase common stock or partnership units	--	--	--	562,353
Conversion of interest accrued to common stock	--	--	--	7,860
Acquired in-process research and development	71,874	19,473,154	--	19,545,028
(Increase) decrease in:				
Other current assets	478,186	(490,386)	9,213	(31,242)
Other assets	--	--	--	(29,847)
Net increase (decrease) in accounts payable and accrued liabilities	(146,245)	721,947	133,645	1,040,154
Net cash used in operating activities	(7,561,388)	(6,736,462)	(3,005,882)	(26,750,798)
Cash flows from investing activities:				
Proceeds from sale or redemption of short-term investments	--	--	30,000	247,750
Purchase of property and equipment	(135,075)	(109,657)	(323,798)	(2,981,886)
Patent costs	(283,409)	(264,434)	(128,877)	(1,319,679)
Acquisition costs	(71,874)	(2,203,236)	(102,506)	(2,377,616)
Net cash used in investing activities	(490,358)	(2,577,327)	(525,181)	(6,431,431)
Cash flows from financing activities:				
Proceeds from sale of common stock, warrants, and partnership units, net of offering costs, and exercise of options and warrants	8,224,731	184,873	18,447,565	42,250,671
Buyback of common stock pursuant to rescission offering	--	--	(288,795)	(288,795)
Withdrawal of partnership net assets	--	--	--	(176,642)
Issuance of convertible debt	--	--	--	80,000
Net cash provided by financing activities	8,224,731	184,873	18,158,770	41,865,234
Increase (decrease) in cash and cash equivalents	172,985	(9,128,916)	14,627,707	8,683,005
Cash and cash equivalents:				
Beginning of period	8,510,020	17,638,936	3,011,229	--
End of period	$ 8,683,005	$ 8,510,020	$17,638,936	$ 8,683,005
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING ACTIVITIES AND FINANCING ACTIVITIES:				
Short-term securities--available-for-sale received in connection with the private offering	$ 2,897,000	$ --	$ --	$ 2,897,000
Unrealized gain on short-term securities--available-for-sale	$ 40,500	$ --	$ --	$ 40,500

The accompanying notes are an integral part of these statements

AVI BIOPHARMA, INC.

(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS

1. ORGANIZATION AND NATURE OF BUSINESS:

AVI BioPharma, Inc. (the Company) was incorporated in the State of Oregon on July 22, 1980. The mission of the Company is to develop and commercialize therapeutic products based upon antisense and cancer immunotherapy technology.

Through May 1993, the financial statements included the combined accounts of the Company and ANTI-GENE DEVELOPMENT GROUP, a limited partnership (AGDG or the Partnership) founded in 1981 and registered in the State of Oregon. Substantially all income generated and proceeds from the Partnership unit sales have been paid to the Company under the terms of research and development contracts entered into by the Partnership and the Company. Significant transactions between the Company and the Partnership have been eliminated.

In March 1993, the Company offered to all partners in the Partnership the opportunity to exchange their partnership units or warrants to purchase partnership units (unit warrants) for common stock or warrants to purchase common stock. Under the terms of the offer, which was completed May 1, 1993, each partner could elect to exchange each unit held or unit warrant held for 1,100 shares of common stock or warrants to purchase 1,100 shares of common stock of the Company, respectively. Total shares and warrants to purchase shares issued in the exchange offer were 1,632,950 and 381,700, respectively.

Effective May 19, 1993, the Company and the Partnership entered into a Technology Transfer Agreement wherein the Partnership conveyed all intellectual

property in its control to the Company. As part of the conveyance, the Company tendered to the Partnership for liquidation all partnership units received pursuant to the exchange offer and received a 49.37 percent undivided interest in the intellectual property. The Company then purchased the remaining undivided interest in the intellectual property for rights to payments of 4.05 percent of gross revenues in excess of $200 million, from sales of products, which would, in the absence of the Technology Transfer Agreement, infringe a valid claim under any patent transferred to the Company. The Company also granted to the Partnership a royalty-bearing license to make, use and sell small quantities of product derived from the intellectual property for research purposes only.

In March 2000, the Company and AGDG amended the Technology Transfer Agreement to give to AGDG and Gene Tools LLC, a related organization, exclusive, non royalty-bearing rights to in vitro diagnostic applications of the intellectual property. In consideration for this amendment, Gene Tools paid the Company $1 million and reduced the royalty that the Company would pay to AGDG under the Technology Transfer Agreement on future sales of therapeutic products from 4.05% to 3.00%.

The remaining net assets of the Partnership, $176,642 of cash, were no longer combined with those of the Company in May 1993. Under the terms of the Technology Transfer Agreement, the Partnership ceased active sales of partnership units and income generating activities and no longer will enter into research and development contracts with the Company. The Partnership currently exists primarily for the purpose of collecting potential future payments from the Company as called for in the Technology Transfer Agreement.

Beginning in 1991, the Company changed its fiscal year from a fiscal year ending on October 31, to a calendar year. The new fiscal year was adopted prospectively.

1. ORGANIZATION AND NATURE OF BUSINESS: (CONTINUED)

The Company is in the development stage. Since its inception in 1980 through December 31, 1999, the Company has incurred losses of approximately $51 million, substantially all of which resulted from expenditures related to research and development, general and administrative expenses and a one-time charge in 1998 of $19,473,154 for acquired in-process research and development reflecting the acquisition of ImmunoTherapy Corporation. The Company has not generated any material revenue from product sales to date, and there can be no assurance that revenues from product sales will be achieved. Moreover, even if the Company does achieve revenues from product sales, the Company nevertheless expects to incur operating losses over the next several years.

The financial statements have been prepared assuming that the Company will continue as a going concern. The Company's ability to achieve a profitable level of operations in the future will depend in large part on its completing product development of its cancer vaccine, antisense and/or drug delivery products, obtaining regulatory approvals for such products and bringing these products to market. During the period required to develop these products, the Company will require substantial financing. There is no assurance that such financing will be available when needed or that the Company's planned products will be commercially successful. If necessary, the Company's management will curtail expenditures in an effort to conserve operating funds.

The likelihood of the long-term success of the Company must be considered in light of the expenses, difficulties and delays frequently encountered in the development and commercialization of new pharmaceutical products, competitive factors in the marketplace as well as the burdensome regulatory environment in which the Company operates. There can be no assurance that the Company will ever achieve significant revenues or profitable operations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and

assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

CASH AND CASH EQUIVALENTS

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. Approximately $2.5 million of the Company's cash balance at December 31, 1999 is subject to return to a certain investor by March 31, 2000 if that investor returns to the Company 500,000 of the Company's shares of common stock. Management believes that the possibility of such a return of cash is remote given the marketability of the shares and their current per share price.

SHORT-TERM SECURITIES--AVAILABLE-FOR-SALE

The Company accounts for its short-term securities in accordance with Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities"

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)
(SFAS 115). As such, the Company has classified its investment securities as available-for-sale and, accordingly, such investment securities are stated on the balance sheet at their fair market value, which exceeded cost by $40,500 at December 31, 1999. The unrealized difference between the cost and the fair market value of these securities has been reflected as a separate component of shareholders' equity. These short-term securities included common stock with a fair value of $2,937,500 at December 31, 1999.

PROPERTY AND EQUIPMENT

Property and equipment is stated at cost and depreciated over the estimated useful lives of the assets, generally five years, using the straight-line method. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the asset.

PATENT COSTS

Patent costs consist primarily of legal and filing fees incurred to file patents on proprietary technology developed by the Company. Patent costs are amortized on a straight-line basis over the shorter of the estimated economic lives or the legal lives of the patents, generally 17 years.

RESEARCH AND DEVELOPMENT

Research and development costs are expensed as incurred.

INCOME TAXES

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes" (SFAS 109). Under SFAS 109, deferred tax assets and liabilities are recorded based on the tax effected difference between the tax bases of assets and liabilities and their carrying amount for financial reporting purposes, referred to as temporary differences, using enacted marginal income tax rates.

NET LOSS PER SHARE

Basic EPS is calculated using the weighted average number of common shares outstanding for the period and diluted EPS is computed using the weighted average number of common shares and dilutive common equivalent shares outstanding. Given that the Company is in a loss position, there is no

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)
difference between basic EPS and diluted EPS since the common stock equivalents would be antidilutive.

YEAR ENDED DECEMBER 31,	1999	1998	1997
Net loss	$(8,278,441)	$(26,733,963)	$(3,615,990)
Weighted average number of shares of common stock and common stock equivalents outstanding:			
Weighted average number of common shares outstanding for computing basic earnings per share	13,440,205	11,801,453	10,078,962
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*	*
Weighted average number of common shares outstanding for computing diluted earnings per share	13,440,205	11,801,453	10,078,962
Net loss per share--basic and diluted	$ (0.62)	$ (2.27)	$ (0.36)

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* The following common stock equivalents are excluded from earnings per share calculation as their effect would have been antidilutive:

YEAR ENDED DECEMBER 31,	1999	1998	1997
Warrants and stock options	7,722,621	7,102,242	4,073,309

SEGMENT REPORTING

As of January 1, 1998, the Company adopted Statement of Financial Accounting Standards No. 131 (SFAS 131), Disclosures about Segments of an Enterprise and Related Information. Based upon definitions contained within SFAS 131, the Company has determined that it operates in one segment.

COMPREHENSIVE INCOME

The Statement of Financial Accounting Standards No. 130 (SFAS 130), "Reporting Comprehensive Income," establishes standards for reporting and display of comprehensive income. Comprehensive income includes charges or credits to equity that did not result from transactions with shareholders. SFAS No. 130 became effective during 1998. The Company's only component of "other comprehensive income" is unrealized gain on short-term securities available-for-sale.

RECENT PRONOUNCEMENTS

In June 1999, Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 137, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 137). SFAS 137 is an amendment to Statement of Financial Accounting Standards No. 133, "Accounting for Derivative and Hedging Activities." SFAS 137 is effective for the Company beginning January 1, 2001.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)
The Company currently does not have any derivative instruments and, accordingly, does not expect the adoption of SFAS 137 to have an impact on its results of operations or financial position.

3. SHAREHOLDERS' EQUITY:

In March 1996, the Company commenced a private offering wherein 712,500 shares of common stock were sold for net proceeds of $4,031,532, which included warrants to purchase 60,201 shares of common stock at $9.00 per share. These warrants are exercisable through the earlier of five years from issuance or three years from the filing for an initial public offering.

In November 1996, the shareholders approved a reverse split of the Company's outstanding Common Stock on the basis of one share for each three shares of the then-outstanding common stock. The share information in the accompanying financial statements has been retroactively restated to reflect the reverse split. The Common Stock continues to have $.0001 par value. The shareholders approved the authorization of a new class of preferred stock which includes 2,000,000 shares at $.0001 par value.

In May 1997, as a condition to its planned initial public offering, the Company offered to holders of 1,292,973 shares of its common stock, the right to rescind their purchase of shares of the Company's common stock. In July 1997, the Company completed its rescission offering to certain shareholders. In this offering, the Company repurchased 64,049 shares of its common stock for payments totaling $408,419, which included interest expense of $119,624.

In June 1997, in its initial public offering, the Company sold 2,000,000 units (the Units), each Unit consisting of one share of the Company's common stock, and one warrant to purchase one share of common stock for $13.50. The Units separated immediately following issuance and now trade only as separate securities. Net proceeds of $15,555,230 were received by the Company.

In July 1997, the Company's Underwriters exercised their over-allotment option and purchased 300,000 additional Units at $9 per Unit, the initial public offering price. Proceeds of $2,462,400 were received by the Company.

In December 1999, the Company completed a private offering with institutional investors and an equity sale to a prospective corporate partner. In the private offering, 1,857,147 shares of common stock and 628,573 warrants to purchase common stock at $4.025 per share were issued. Substantially all of the warrants issued in connection with the private placement are currently exercisable and expire in five years. Net proceeds of $5,808,003 were received. In the equity sale to the prospective corporate partner, 1,000,000 shares were issued in exchange for net proceeds of $5,247,000 in cash and securities including 100,000 shares of the prospective corporate partner's common stock. Subsequent to December 31, 1999, the shares received from the prospective corporate partner were registered and have no restrictions.

At December 31, 1999, the Company had two stock option plans, the 1992 Stock Incentive Plan and the 1997 Stock Option Plan (the Plans). The 1992 Plan provides for the issuance of incentive stock options to its employees and nonqualified stock options, stock appreciation rights and bonus rights to employees, directors of the Company and consultants. The 1997 Plan provides for the assumption of the ImmunoTherapy Options under the Merger Agreement. The Company has reserved 2,314,193

3. SHAREHOLDERS' EQUITY: (CONTINUED)
shares of common stock for issuance under the Plans. Options issued under the Plans generally vest ratably over four years and expire five to ten years from the date of grant.

The Financial Accounting Standards Board has issued SFAS 123, which defines a fair value based method of accounting for an employee stock option and similar equity instruments and encourages all entities to adopt that method of accounting for all of their employee stock compensation plans. However, it also

allows an entity to continue to measure compensation cost for those plans using the method of accounting prescribed by Accounting Principles Board Opinion No. 25 (APB 25). Entities electing to remain with the accounting in APB 25 must make pro forma disclosures of net income (loss) and, if presented, earnings (loss) per share, as if the fair value based method of accounting defined in SFAS 123 had been adopted. The Company has elected to account for its stock-based compensation plans under APB 25; however, the Company has computed, for pro forma disclosure purposes, the value of all options granted during 1999 and 1998 using the Black-Scholes options pricing model as prescribed by SFAS 123 using the following weighted average assumptions for grants:

YEAR ENDED DECEMBER 31,	1999	1998	1997
Risk-free interest rate	6.25%	6.25%	6.25%
Expected dividend yield	0%	0%	0%
Expected lives	6 Years	6 Years	6 Years
Expected volatility	91%	76%	56%

Using the Black-Scholes methodology, the total value of options granted during 1999, 1998 and 1997 was $366,767, $3,043,771 and $1,984,033, respectively, which would be amortized on a pro forma basis over the vesting period of the options (typically four years). The weighted average fair value of options granted during 1999, 1998 and 1997 was $2.70, $4.08 and $3.95, respectively. Included in options granted during 1998, are options assumed in connection with the ImmunoTherapy Corporation acquisition as discussed in Note 6. As the fair value of the assumed options was recorded as part of the purchase price allocation, these assumed options have not been included in the SFAS 123 fair value calculation.

If the Company had accounted for its stock-based compensation plans in accordance with SFAS 123, the Company's net income and net income per share would approximate the pro forma disclosures below:

	1999		1998		1997	
FOR THE YEAR ENDED DECEMBER 31,	AS REPORTED	PRO FORMA	AS REPORTED	PRO FORMA	AS REPORTED	PRO FORMA
Net loss	$(8,278,441)	$(9,867,318)	$(26,733,963)	$(28,791,068)	$(3,615,990)	$(4,949,440)
Net loss per share--basic and diluted	$ (0.62)	$ (0.73)	$ (2.27)	$ (2.44)	$ (0.36)	$ (0.49)

The effects of applying SFAS 123 in this pro forma disclosure are not indicative of future amounts. Additional awards are anticipated in future years.

3. SHAREHOLDERS' EQUITY: (CONTINUED)

A summary of the status of the Company's stock option plans and changes are presented in the following table:

	1999		1998		1997	
FOR THE YEAR ENDED DECEMBER 31,	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
Options outstanding at beginning of year	2,136,894	$5.32	1,240,209	$5.30	1,123,838	$4.73
Granted	135,631	3.47	971,856	5.29	502,361	6.51
Exercised	(16,448)	4.06	(35,990)	4.64	(59,903)	4.70
Canceled	(60,710)	3.43	(39,181)	4.65	(326,087)	5.29
Options outstanding at end of						

year.....	2,195,367	5.27	2,136,894	5.32	1,240,209	5.30
Exercisable at end of year.....	1,752,226	$5.17	1,428,798	$5.05	980,206	$5.01

At December 31, 1999, 118,826 shares were available for future grant.

The following table summarizes information about stock options outstanding at December 31, 1999:

EXERCISE PRICE	OUTSTANDING SHARES AT DECEMBER 31, 1999	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	EXERCISABLE OPTIONS
0.04$.....	12,600	5.93	12,600
3.31.....	97,631	6.05	60,139
3.69.....	33,000	8.30	5,000
3.75.....	33,334	8.92	8,333
3.81.....	134,768	5.50	86,268
3.97.....	199,696	6.17	197,176
4.56.....	576,580	2.50	576,580
4.95.....	129,843	4.98	129,843
5.00.....	5,000	4.95	--
6.00.....	79,543	5.83	52,875
6.38.....	239,007	7.36	214,007
6.63.....	520,992	8.03	340,199
6.69.....	100,000	7.70	50,000
7.94.....	5,040	3.02	5,040
8.13.....	28,333	7.84	14,166

The Company has also issued warrants for the purchase of common stock in conjunction with financing and compensation arrangements. The value of warrants granted in 1999 have not been considered in the fair value based method of accounting defined in SFAS 123 as such warrant grants related to the raising of additional equity. Of the 2,166,814 warrants granted during 1998, 2,116,814 were in connection with the ImmunoTherapy Corporation acquisition as discussed in Note 6. The fair

3. SHAREHOLDERS' EQUITY: (CONTINUED)

value of such warrants was considered in the purchase price of ImmunoTherapy Corporation and therefore has not been considered in the fair value based method of accounting defined in SFAS 123. A summary of the status of the Company's warrants and changes are presented in the following table:

	1999		1998		1997	
FOR THE YEAR ENDED DECEMBER 31,	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
Warrants outstanding at beginning of year.....	4,965,348	$13.17	2,833,101	$12.88	427,434	$ 4.42
Granted.....	628,573	4.025	2,166,814	13.36	2,700,000	13.30
Exercised.....	(16,667)	0.0003	(34,567)	0.54	(50,000)	0.10
Canceled.....	(50,000)	7.25	--	--	(244,333)	5.39
Warrants outstanding at end of year.....	5,527,254	12.22	4,965,348	13.17	2,833,101	12.88
Exercisable at end of year.....	5,455,825	$12.33	4,965,348	$13.17	2,433,101	$12.99

In connection with the initial public offering, the Company authorized the

issuance of the Underwriters' Warrants (the Warrants) and reserved 400,000 shares of Common Stock for issuance upon exercise of such Warrants (including the warrants to purchase common stock issuable upon exercise of the Warrants). The Warrants entitle the holder to acquire up to an aggregate of 200,000 Units at an exercise price of $10.80 per Unit and are currently exercisable and expire June 2002. Each Unit consists of one share of Common Stock and one redeemable warrant. Each warrant initially entitles the holder thereof to purchase one share of Common Stock at a price of $13.50 per share.

The following table summarizes information about warrants outstanding at December 31, 1999:

EXERCISE PRICE	OUTSTANDING WARRANTS AT DECEMBER 31, 1999	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	EXERCISABLE WARRANTS
$0.0003..	16,667	Varies	16,667
1.14...	5,000	Varies	5,000
4.025..	628,573	4.97	557,144
9.00...	60,200	0.42	60,200
10.80..	200,000	2.42	200,000
13.50..	4,616,814	Varies	4,616,814

4. INCOME TAXES:

At December 31, 1999 and 1998, the Company had federal and state tax net operating loss carryforwards of approximately $30,700,000 and $23,900,000, respectively. The difference between the operating loss carryforwards on a tax basis and a book basis is due principally to differences in depreciation, amortization, and treatment of research and development costs. The federal carryforwards began to expire in 1997 and the state carryforwards will begin to expire in 2008, if not otherwise used. Of this $30,700,000, approximately $4,150,000 relates to net operating losses assumed as part of the ImmunoTherapy Corporation acquisition. Utilization of such losses is limited to approximately $1,200,000 per year. In addition, the Internal Revenue Code rules under Section 382 could limit the future use of the remaining $26,550,000 in losses based on ownership changes and the value of the Company's stock.

The Company had a net deferred tax asset of $13,203,000 and $10,566,000 at December 31, 1999 and 1998, primarily from net operating loss carryforwards. A valuation allowance was recorded to reduce the net deferred tax asset to zero. The net change in the valuation allowance for deferred tax assets was an increase of approximately $2,637,000 and $4,306,000 for the years ended December 31, 1999 and 1998, respectively, mainly due to the increase in the net operating loss carryforwards.

An analysis of the deferred tax assets and liabilities as of December 31, 1999, is as follows:

	DEFERRED TAX ASSET	DEFERRED TAX LIABILITY	TOTAL
Net operating loss carryforwards.....	$12,278,000	$ --	$ 12,278,000
Depreciation.....	2,000	--	2,000
Research and development tax credits...	1,261,000	--	1,261,000
Patent costs.....	--	(338,000)	(338,000)
	$13,541,000	$(338,000)	13,203,000

Valuation allowance.....	(13,203,000)
	$ --

An analysis of the deferred tax assets and liabilities as of December 31, 1998, is as follows:

	DEFERRED TAX ASSET	DEFERRED TAX LIABILITY	TOTAL
Net operating loss carryforwards.....	$ 9,569,000	$ --	$ 9,569,000
Depreciation.....	4,000	--	4,000
Research and development tax credits...	1,285,000	--	1,285,000
Patent costs.....	--	(292,000)	(292,000)
	$10,858,000	$(292,000)	10,566,000
Valuation allowance.....			(10,566,000)
			$ --

5. LEASE OBLIGATIONS:

The Company leases office and laboratory facilities under various noncancelable operating leases through December 2004. Rent expense under these leases was $322,000, $293,000 and $313,000 for the years ended December 31, 1999, 1998 and 1997, respectively, and $1,762,000 for the period from July 22, 1980 through December 31, 1999.

At December 31, 1999, the aggregate noncancelable future minimum payments under these leases are as follows:

Year ending December 31,	
2000.....	$ 319,000
2001.....	327,000
2002.....	335,000
2003.....	319,000
2004.....	281,000
Thereafter.....	--
Total minimum lease payments.....	$1,581,000

6. ACQUISITION:

On September 15, 1998, the Company acquired all of the equity of ImmunoTherapy Corporation (ITC), a privately held biotechnology company based in Seattle, Washington. The purchase consideration consisted of 2,132,592 shares of AVI BioPharma common stock and 2,116,814 warrants to purchase AVI BioPharma common stock. The transaction was accounted for as a purchase. In connection with the purchase price allocation, the Company estimated that substantially all of the intangible assets consist of research and development projects in process. At that time, the development of these projects had not reached technology feasibility and the technology was believed to have no alternative future use. In accordance with generally accepted accounting principles, a one-time charge for acquired in-process research and development of $19,473,154,

or $1.65 per share, has been reflected in the accompanying financial statements.

The value assigned to purchased in-process technology was determined by estimating the costs to develop the purchased in-process technology into commercially viable products, estimating the resulting net cash flows from the expected product sales of such products, and discounting the net cash flows to their present value using a risk-adjusted discount rate.

Remaining development efforts for the acquired R&D projects include various stages of clinical testing and development work to manufacture the product in accordance with functional and commercial specifications. If none of these products is successfully developed, the sales and profitability of the combined company may be adversely affected in future periods.

6. ACQUISITION: (CONTINUED)
Unaudited pro forma combined statements of operations assume the ITC acquisition occurred at beginning of each period and include acquired in-process research and development are as follows:

YEAR ENDED DECEMBER 31,	1998	1997
Revenues	$ 120,351	$ 14,345
Net loss	(27,684,092)	(4,940,483)
Net loss per share--basic and diluted	$ (2.08)	$ (0.40)

As part of the acquisition, the Company loaned $440,000 in relocation related costs to a former ITC executive who joined the management of the Company. The resulting note receivable was repaid by March 31, 1999 in accordance with the terms on the note receivable.

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BALANCE SHEETS

	MARCH 31, 2000 (UNAUDITED)	DECEMBER 31, 1999
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 9,580,282	$ 8,683,005
Short-term securities--available-for-sale	4,800,000	2,937,500
Other current assets	48,717	31,242
Total Current Assets	14,428,999	11,651,747
Property and Equipment, net of accumulated depreciation and amortization of $2,552,567 and $2,518,494	423,229	403,303
Patent Costs, net of accumulated amortization of $454,268 and $418,268	849,852	844,731
Other Assets	89,309	29,847
Total Assets	$ 15,791,389	$ 12,929,628

LIABILITIES AND SHAREHOLDERS' EQUITY

Current Liabilities:		
Accounts payable	$ 509,874	$ 727,673
Accrued liabilities	257,101	312,481
Total Current Liabilities	766,975	1,040,154
Shareholders' Equity:		
Preferred Stock, $.0001 par value, 2,000,000 shares authorized; none issued and outstanding	--	--
Common stock, $.0001 par value, 50,000,000 shares authorized; 16,658,784 and 16,236,428 issued and outstanding	1,666	1,624
Additional paid-in capital	65,313,507	62,901,227
Accumulated other comprehensive income	1,903,000	40,500
Deficit accumulated during the development stage	(52,193,759)	(51,053,877)
Total Shareholders' Equity	15,024,414	11,889,474
Total Liabilities and Shareholders' Equity	$ 15,791,389	$ 12,929,628

The accompanying notes are an integral part of these balance sheets.

AVI BIOPHARMA, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF OPERATIONS

	THREE MONTHS ENDED MARCH 31,		JULY 22, 1980 (INCEPTION) TO
	2000	1999	MARCH 31, 2000
	(UNAUDITED)	(UNAUDITED)	(UNAUDITED)
Revenues, from license fees, grants and research contracts	$ 1,131,873	$ 4,115	$ 1,973,090
Operating expenses:			
Research and development	1,936,473	1,342,650	26,664,106
General and administrative	436,063	417,624	9,634,731
Acquired in-process research and development	--	59,839	19,545,028
	2,372,536	1,820,113	55,843,865
Other Income:			
Interest income, net	100,781	76,539	1,580,266
Realized gain on sale of short-term investments	--	--	96,750
	100,781	76,539	1,677,016
Net loss	$(1,139,882)	$(1,739,459)	$(52,193,759)
Net loss per share--basic and diluted	$ (0.07)	$ (0.13)	
Weighted average number of common shares outstanding for computing basic and diluted loss per share	16,359,671	13,349,358	

The accompanying notes are an integral part of these statements.

AVI BIOPHARMA, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CASH FLOWS

	THREE MONTHS ENDED MARCH 31,		FOR THE PERIOD JULY 22, 1980 (INCEPTION) TO MARCH 31, 2000
	2000	1999	
	(UNAUDITED)	(UNAUDITED)	(UNAUDITED)
Cash flows from operating activities:			
Net loss	$(1,139,882)	$(1,739,459)	$(52,193,759)
Adjustments to reconcile net loss to net cash flows used in operating activities:			
Depreciation and amortization	72,722	69,812	3,126,253
Realized gain on sale of short-term investments--available for sale	--	--	(96,750)
Compensation expense on issuance of common stock and partnership units	--	--	251,992
Compensation expense on issuance of options and warrants to purchase common stock or partnership units	--	--	562,353
Conversion of interest accrued to common stock	--	--	7,860
Acquired in-process research and development	--	59,839	19,545,028
(Increase) decrease in:			
Other current assets	(17,475)	466,115	(48,717)
Other assets	(59,462)	--	(89,309)
Net increase (decrease) in accounts payable and accrued liabilities	(273,179)	(478,068)	766,975
Net cash used in operating activities	(1,417,276)	(1,621,761)	(28,168,074)
Cash flows from investing activities:			
Proceeds from sale or redemption of short-term investments	--	--	247,750
Purchase of property and equipment	(56,648)	(101,707)	(3,038,534)
Patent costs	(41,121)	(50,519)	(1,360,800)
Acquisition costs	--	(59,839)	(2,377,616)
Net cash used in investing activities	(97,769)	(212,065)	(6,529,200)
Cash flows from financing activities:			
Proceeds from sale of common stock, warrants, and partnership units, net of offering costs, and exercise of options	2,412,322	15,000	44,662,993
Buyback of common stock pursuant to rescission offering	--	--	(288,795)
Withdrawal of partnership net assets	--	--	(176,642)
Issuance of convertible debt	--	--	80,000
Net cash provided by financing activities	2,412,322	15,000	44,277,556
Increase (decrease) in cash and cash equivalents	897,277	(1,818,826)	9,580,282
Cash and cash equivalents:			
Beginning of period	8,683,005	8,510,020	--
End of period	$ 9,580,282	$ 6,691,194	$ 9,580,282
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING ACTIVITIES AND FINANCING ACTIVITIES:			
Short-term securities--available-for-sale received in connection with the private offering	$ --	$ --	$ 2,897,000
Unrealized gain on short-term securities--available-for-sale	$ 1,862,500	$ --	$ 1,903,000

The accompanying notes are an integral part of these statements.

AVI BIOPHARMA, INC.

NOTES TO FINANCIAL STATEMENTS

(UNAUDITED)

NOTE 1. BASIS OF PRESENTATION

The financial information included herein for the three-month periods ended March 31, 2000 and 1999, the financial information as of March 31, 2000, and the financial information from inception (July 22, 1980) to March 31, 2000 is unaudited; however, such information reflects all adjustments consisting only of

normal recurring adjustments which are, in the opinion of management, necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods. The financial information as of December 31, 1999 is derived from AVI BioPharma, Inc.'s (the Company's) Form 10-K. The interim financial statements should be read in conjunction with the financial statements and the notes thereto included in the Company's Form 10-K. The results of operations for the interim periods presented are not necessarily indicative of the results to be expected for the full year.

NOTE 2. EARNINGS PER SHARE

Basic EPS is calculated using the weighted average number of common shares outstanding for the period and diluted EPS is computed using the weighted average number of common shares and dilutive common equivalent shares outstanding. Given that the Company is in a loss position, there is no difference between basic EPS and diluted EPS since the common stock equivalents would be antidilutive.

	THREE MONTHS ENDED MARCH 31,	
	2000	1999
Net loss	$(1,139,882)	$(1,739,459)
Weighted average number of shares of common stock and common stock equivalents outstanding	--	--
Weighted average number of common shares outstanding for computing basic earnings per share	16,359,671	13,349,358
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*
Weighted average number of common shares outstanding for computing diluted earnings per share	16,359,671	13,349,358
Net loss per share--basic and diluted	$ (0.07)	$ (0.13)

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* The following common stock equivalents are excluded from earnings per share calculation as their effect would have been antidilutive:

	THREE MONTHS ENDED MARCH 31,	
	2000	1999
Warrants and stock options	7,803,265	7,078,051

NOTE 3. SUBSEQUENT EVENT

In April 2000, we entered into an alliance with SuperGen, Inc. for shared development and marketing rights for Avicine. Under the terms of the agreement, AVI and SuperGen will equally share in future clinical development and FDA registration costs as well as in profits from product sales in the United States. It is anticipated upon closing the Company will receive from SuperGen, Inc. an initial payment of $20,000,000 in the form of cash and SuperGen common stock in exchange for 1,684,211 shares of our common stock and a warrant to purchase up to 10% of our then outstanding common stock. Closing of the transaction will occur during the second or third quarter of 2000.

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROSPECTUS. WE HAVE NOT, AND THE UNDERWRITERS HAVE NOT, AUTHORIZED ANY OTHER PERSON TO PROVIDE YOU WITH DIFFERENT INFORMATION. IF ANYONE PROVIDES YOU WITH DIFFERENT OR INCONSISTENT INFORMATION, YOU SHOULD NOT RELY ON IT. INFORMATION CONTAINED ON OUR WEB SITE DOES NOT CONSTITUTE A PART OF THIS PROSPECTUS. THE INFORMATION IN THIS PROSPECTUS MAY ONLY BE ACCURATE AS OF THE DATE APPEARING ON THE COVER PAGE OF THIS PROSPECTUS, REGARDLESS OF THE TIME THIS PROSPECTUS IS DELIVERED OR OUR COMMON STOCK IS SOLD.

WE ARE NOT, AND THE UNDERWRITERS ARE NOT, MAKING AN OFFER TO SELL THE SHARES IN ANY JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED. NO ACTION IS BEING TAKEN IN ANY JURISDICTION OUTSIDE THE UNITED STATES TO PERMIT A PUBLIC OFFERING OF OUR COMMON STOCK OR THE POSSESSION OR DISTRIBUTION OF THIS PROSPECTUS IN ANY SUCH JURISDICTION. PERSONS WHO COME INTO POSSESSION OF THIS PROSPECTUS IN JURISDICTIONS OUTSIDE OF THE UNITED STATES ARE REQUIRED TO INFORM THEMSELVES ABOUT AND TO OBSERVE ANY RESTRICTIONS AS TO THIS OFFERING AND THE DISTRIBUTION OF THIS PROSPECTUS APPLICABLE IN THIS JURISDICTION.

UNTIL , 2000, ALL DEALERS EFFECTING TRANSACTIONS IN OUR SECURITIES, WHETHER OR NOT PARTICIPATING IN THIS OFFERING, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS IS IN addition TO THE DEALERS' OBLIGATION TO DELIVER A PROSPECTUS WHEN ACTING AS UNDERWRITERS AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

3,000,000 SHARES

[LOGO]

COMMON STOCK

PROSPECTUS

PAULSON INVESTMENT COMPANY, INC.
I-BANKERS SECURITIES, INC.

, 2000

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.*

SEC Registration Fee	$ 12,197
NASD Filing Fee	5,000
Nasdaq Listing Fee	17,500
Accountant's Fees and Expenses	25,000
Legal Fees and Expenses	125,000
Printing and Engraving Expenses	70,000
Blue Sky Fees and Expenses	5,000
Miscellaneous	40,303
Total	300,000

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* All amounts are estimates except for the SEC registration fee, the NASD filing fee and the Nasdaq listing fee.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Company's Articles of Incorporation provide for indemnification of the officers and directors of the Company to the fullest extent permitted by law. The Oregon Business Corporation Act, permits a corporation to limit, under certain circumstances, a director's liability for monetary damages in actions brought by the corporation or its stockholders. As an Oregon corporation, the Company is subject to the OBCA and the exculpation from liability and indemnification provision contained therein. Pursuant to Section 60.047(2)(d) of the OBCA, Article II of the Company's Fifth Restated Articles of Incorporation (the "Articles") eliminates the liability of the Company's directors to the Company or its stockholders for monetary damages, except for any liability related to breach of the duty of loyalty, actions not in good faith and certain other liabilities.

Section 60.387, ET SEQ., of the OBCA allows corporations to indemnify their directors and officers against liability where the director or officer has acted in good faith and with a reasonable belief that actions taken were in the best interests of the corporation or at least not adverse to the corporation's best interests and, if in a criminal proceeding, the individual had not reasonable cause to believe the conduct in question was unlawful. Under the OBCA, corporations may not indemnify against liability in connection with a claim by or in the right of the corporation but may indemnity against the reasonable expenses associated with such claims. Corporations may not indemnify against breached of the duty of loyalty. The OBCA mandates indemnification against all reasonable expenses incurred in the successful defense of any claim made or threatened whether or not such claims was by or in the right of the corporation. Finally, a court may order indemnification if it determines that the director or officer is fairly and reasonably entitled to indemnification in view of all the relevant circumstances whether or not the director or officer met the good faith and reasonable belief standards or conduct set out in the statute.

The OBCA also provides that the statutory indemnification provisions are not deemed exclusive of any other rights to which directors or officers may be entitled under a corporation's articles of incorporation or bylaws, any agreement, general or specific action of the board of directors, voce of stockholders or otherwise.

The Company's Articles also provide for the elimination of liability of directors for monetary damages to the full extent permitted by the Oregon Business Corporations Act.

The Company has entered into indemnification agreements with its directors and certain of its officers.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

During the last three years, we sold or issued the following securities that were not registered under the Securities Act:

(a) On December 1, 1999, we issued 1,000,000 shares of common stock to SuperGen, Inc. in exchange for cash consideration and 100,000 shares of the common stock of SuperGen, Inc. This transaction was effected in reliance upon the exemption from registration under the Securities Act provided under Section 4(2) of the Securities Act. The shares of our common stock issued to SuperGen, Inc. have been registered with the Securities and Exchange Commission for resale on a registration statement on Form S-3.

(b) On December 15, 1999, we issued 2,414,291 shares of common stock and warrants to purchase 724,288 shares of common stock to certain investors for aggregate consideration of $8,415,019. This transaction was effected in reliance upon the exemption from registration under the Securities Act provided under Section 4(2) of the Securities Act. The shares of our common stock issued to these investors have been registered with the Securities and Exchange Commission for resale on a registration statement on Form S-3.

ITEM 16. EXHIBITS.

NUMBER	EXHIBITS
1.0	Form of Underwriting Agreement
3.1	Third Restated Articles of Incorporation of AntiVirals Inc.(1)
3.2	Bylaws of AntiVirals Inc.(1)
3.3	First Amendment to Third Restated Articles of Incorporation(4)
3.4	First Amendment to Bylaws of AVI BioPharma, Inc.
4.1	Form of Specimen Certificate for Common Stock(1)
4.2	Form of Warrant for Purchase of Common Stock(1)
4.3	Form of Warrant Agreement(1)
4.4	Form of Representative's Warrant(1)
4.5	Form of Warrant Agreement between AntiVirals Inc. and ImmunoTherapy Shareholders(3)
4.6	Form of Common Stock Purchase Warrant(5)
4.7	Purchase Agreement, dated December 15, 1999, by and between AVI BioPharma, Inc. and certain Investors(5)
4.8	Registration Rights Agreement, dated December 15, 1999, by and between AVI BioPharma, Inc. and certain Investors(5)
4.9	Purchase Agreement, dated December 16, 1999, by and between AVI BioPharma, Inc. and certain Investors(5)
4.10	Registration Rights Agreement, dated December 16, 1999, by and between AVI BioPharma, Inc. and certain Investors(5)
4.11	Subscription Agreement, dated December 1, 1999, by and between SuperGen, Inc. and AVI BioPharma, Inc.(5)
4.12	Form of Underwriter's Warrant
5.1	Opinion of Ater Wynne LLP
10.1	1992 Stock Incentive Plan, as amended
10.2	Employment Agreement with Denis R. Burger, Ph.D. dated November 4, 1996(1)

NUMBER	EXHIBITS
10.3	Employment Agreement with Alan P. Timmins dated November 4, 1996(1)
10.4	Employment Agreement with Dwight Weller, Ph.D. dated November 4, 1996(1)
10.5	Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1992(1)
10.6	Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc. dated January 20, 1996(1)
10.7	License and Option Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1993(1)
10.8	Commercial Lease between Research Way Investments, Landlord, and AntiVirals Inc., Tenant, dated June 15, 1992(1)
10.9	Lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated June 17, 1992(1)
10.10	First Amendment to Lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated July 24, 1995(1)
10.11	Employment Agreement with Patrick L. Iversen, Ph.D. dated July 14, 1997(2)
10.12	ImmunoTherapy Corporation 1997 Stock Option Plan(3)
10.13	Form of Employment Agreement with Jeffrey Lillard(3)
10.14	Promissory Note dated June, 1998 made by the Lillard Family Trust to AntiVirals Inc.(3)
10.15	Oregon Deed of Trust Security Agreement and Fixture Filing dated June, 1998, granted by the Lillard Family Trust to Fidelity National Title Company of Oregon, as trustee, for the benefit of AntiVirals Inc.(3)
10.16	License Agreement between ImmunoTherapy Corporation and Ohio State University, dated March 12, 1996(3)
10.17	License Agreement between ImmunoTherapy Corporation and Ohio State University, dated December 26, 1996(3)
10.18	Amendment to License Agreement between ImmunoTherapy Corporation and Ohio State University, dated September 23, 1997(3)
10.19	Agreement and Plan of Reorganization and Merger dated as of February 2, 1998, among AntiVirals Inc., AntiVirals Acquisition Corporation and ImmunoTherapy Corporation(3)
10.20	First Amendment to Plan of Reorganization and Merger dated as of May 27, 1998, among AntiVirals Inc., AntiVirals Acquisition Corporation and ImmunoTherapy Corporation(3)
10.21	Second Amendment to Plan of Reorganization and Merger dated as of August 4, 1998, among AntiVirals Inc., AntiVirals Acquisition Corporation and ImmunoTherapy Corporation(3)
10.22	Form of Escrow Agreement among AntiVirals Inc., the Escrow Indemnitors and Jeffrey Lillard(3)
10.23	2000 Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AVI BioPharma, Inc.
10.25	2000 Employee Share Purchase Plan (6)
23.0	Consent of Arthur Andersen LLP
23.1	Consent of Ater Wynne LLP (included in Exhibit 5.1)

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(1) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form SB-2, as amended and filed with the Securities and Exchange Commission on May 29, 1997 (Commission Registration No. 333-20513).

(2) Incorporated by reference to Exhibits to Registrant's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1997, and filed with the Securities and Exchange Commission on March 30, 1998.

(3) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form S-4, as amended, and filed with the Securities and Exchange Commission on August 7, 1998 (Commission Registration No. 333-60849).

(4) Incorporated by reference to Exhibits to Registrant's current report on Form 8-K, as filed with the Securities and Exchange Commission on September 30, 1998 (Commission Registration No. 000-22613).

(5) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form S-3, as amended, and filed with the Securities and Exchange Commission on December 21, 1999 (Commission Registration No. 333-93135).

(6) Incorporated by reference to Appendix A to Registrant's Definitive Proxy Statement on Form 14-A filed with the Securities and Exchange Commission on April 12, 2000.

ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

(1) File, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement, and notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the dollar value of the securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) Include any additional or changed material information on the plan of distribution.

(2) For determining liability under the Securities Act, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.

(3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

(4) For purposes of determining any liability under the Securities Act, treat the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act as part of this registration statement as of the time it was declared effective.

(5) For determining any liability under the Securities Act, treat each post-effective amendment that contains a form of prospectus as a new registration statement for the securities offered in the registration statement, and that offering of the securities at that time as the initial bona fide offering of those securities.

In addition, the undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification is against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling

precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Portland, State of Oregon, on June 16, 2000.

AVI BIOPHARMA, INC.

By: /s/ DENIS R. BURGER
Denis R. Burger, Ph.D.
CHAIRMAN AND CHIEF EXECUTIVE OFFICER

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Denis R. Burger, Ph.D. and Alan P. Timmins, jointly and severally, his attorneys-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendment to this Registration Statement on Form S-1 and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this report has been signed below by the following persons on behalf of the registrant and in their capacities indicated on , 2000:

SIGNATURE	TITLE
/s/ DENIS R. BURGER Denis R. Burger, Ph.D.	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)
/s/ ALAN P. TIMMINS Alan P. Timmins	President, Chief Operating Officer, and Director
/s/ MARK M. WEBBER Mark M. Webber	Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ PATRICK L. IVERSEN Patrick L. Iversen, Ph.D.	Senior Vice President of Research and Development and Director
/s/ DWIGHT D. WELLER Dwight D. Weller, Ph.D.	Senior Vice President of Chemistry and Manufacturing and Director

SIGNATURE	TITLE
/s/ NICK BUNICK	Director

Nick Bunick

/s/ BRUCE L.A. CARTER

Bruce L.A. Carter, Ph.D. — Director

/s/ JOHN W. FARA

John W. Fara, Ph.D. — Director

/s/ JAMES B. HICKS

James B. Hicks, Ph.D. — Director

/s/ JOSEPH RUBINFELD

Joseph Rubinfeld, Ph.D. — Director

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10.20	First Amendment to Plan of Reorganization and Merger dated as of May 27, 1998, among AntiVirals Inc., AntiVirals Acquisition Corporation and ImmunoTherapy Corporation(3)
10.21	Second Amendment to Plan of Reorganization and Merger dated as of August 4, 1998, among AntiVirals Inc., AntiVirals Acquisition Corporation and ImmunoTherapy Corporation(3)
10.22	Form of Escrow Agreement among AntiVirals Inc., the Escrow Indemnitors and Jeffrey Lillard(3)

10.23	2000 Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AVI BioPharma, Inc.
10.25	2000 Employee Stock Purchase Plan (6)
23.0	Consent of Arthur Andersen LLP
23.1	Consent of Ater Wynne LLP (included in Exhibit 5.1)

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(1) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form SB-2, as amended and filed with the Securities and Exchange Commission on May 29, 1997 (Commission Registration No. 333-20513).

(2) Incorporated by reference to Exhibits to Registrant's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1997, and filed with the Securities and Exchange Commission on March 30, 1998.

(3) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form S-4, as amended, and filed with the Securities and Exchange Commission on August 7, 1998 (Commission Registration No. 333-60849).

(4) Incorporated by reference to Exhibits to Registrant's current report on Form 8-K, as filed with the Securities and Exchange Commission on September 30, 1998 (Commission Registration No. 000-22613).

(5) Incorporated by reference to Exhibits to Registrant's Registration Statement on Form S-3, as amended, and filed with the Securities and Exchange Commission on December 21, 1999 (Commission Registration No. 333-93135).

(6) Incorporated by reference to Appendix A to Registrant's Definitive Proxy Statement on Form 14-A filed with the Securities and Exchange Commission on April 12, 2000.

3,000,000 SHARES

OF COMMON STOCK

OF

AVI BIOPHARMA, INC.

UNDERWRITING AGREEMENT

_____, 2000

Paulson Investment Company, Inc.
As Representative of the
Several Underwriters
811 SW Naito Parkway, Suite 200
Portland, Oregon 97204

Gentlemen:

AVI BioPharma, Inc., an Oregon corporation (the "Company"), proposes to sell to the several underwriters (the "Underwriters") named in Schedule I hereto for whom you are acting as Representative (the "Representative") an aggregate of 3,000,000 shares (the "Firm Shares") of the Company's common stock ("Common Stock"). The respective number of the Firm Shares to be so purchased by the several Underwriters are set forth opposite their names in Schedule I hereto. The Company also proposes to grant to the Representative an option to purchase in aggregate up to 450,000 additional Shares, identical to the Firm Shares (the "Option Shares"), as set forth below.

As the Representative, you have advised the Company (a) that you are authorized to enter into this Agreement for yourself as Representative and on behalf of the several Underwriters, and (b) that the several Underwriters are willing, acting severally and not jointly, to purchase the numbers of Firm Shares set forth opposite their respective names in Schedule I. The Firm Shares and the Option Shares (to the extent the aforementioned option is exercised) are herein collectively called the "Shares."

In consideration of the mutual agreements contained herein and of the interests of the parties in the transactions contemplated hereby, the parties hereto agree as follows:

1. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to each of the Underwriters as follows:

(a) A registration statement on Form S-1 (File No. 333-_____) with respect to the Shares has been prepared by the Company in conformity with the requirements of the Securities Act of 1933, as amended (the "Act"), and the Rules and Regulations (the "Rules and

Regulations") of the Securities and Exchange Commission (the "Commission") thereunder and has been filed with the Commission. Copies of such registration statement, including any amendments thereto, the preliminary prospectuses (meeting the requirements of the Rules and Regulations) contained therein and the exhibits, financial statements and schedules, as finally amended and revised, have heretofore been delivered by the Company to you. Such registration statement, together with any registration statement filed by the Company pursuant to Rule 462 (b) of the Act, herein referred to as the "Registration Statement," which shall be deemed to include all information omitted therefrom in reliance upon Rule 430A and contained in the Prospectus referred to below, has become effective under the Act and no post-effective amendment to the Registration Statement has been filed as of the date of this Agreement. "Prospectus" means (a) the form of prospectus

first filed with the Commission pursuant to Rule 424(b) or (b) the last preliminary prospectus included in the Registration Statement filed prior to the time it becomes effective or filed pursuant to Rule 424(a) under the Act that is delivered by the Company to the Underwriters for delivery to purchasers of the Shares, together with the term sheet or abbreviated term sheet filed with the Commission pursuant to Rule 424(b)(7) under the Act. Each preliminary prospectus included in the Registration Statement prior to the time it becomes effective is herein referred to as a "Preliminary Prospectus."

(b) The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Oregon, with corporate power and authority to own or lease its properties and conduct its business as described in the Registration Statement. The Company does not own and never has owned a controlling interest in any other corporation or other business entity that has or ever has had any material assets, liabilities or operations. The Company is duly qualified to transact business in all jurisdictions in which the conduct of its business requires such qualification.

(c) The outstanding shares of each class or series of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable and, except as disclosed in the Registration Statement, have been issued and sold by the Company, as the case may be, in compliance in all material respects with applicable securities and banking laws; the issuance and sale of the Shares have been duly authorized by all necessary corporate action and, when issued and paid for as contemplated herein, the Shares will be validly issued, fully paid and non-assessable; and no preemptive rights of shareholders exist with respect to any security of the Company or the issue and sale thereof. Except as set forth in the Registration Statement, neither the filing of the Registration Statement nor the offering or sale of the Shares as contemplated by this Agreement gives rise to any rights, other than those which have been waived or satisfied, for or relating to the registration of any shares of Common Stock or other securities of the Company. The Company does not own or have the right to acquire capital stock or other equity securities of any other person representing more that five percent of the equity of that person, or otherwise control any other person.

(d) The information set forth under the caption "Capitalization" in the Prospectus is true and correct. The Common Stock conforms and the Representative's Warrant will conform to the description thereof contained in the Registration Statement. The forms of certificates for the Shares conform to the requirements of the corporate law of Oregon.

(e) The Commission has not issued an order preventing or suspending the use of any Prospectus relating to the proposed offering of the Shares nor instituted proceedings for that

purpose. The Registration Statement contains, and the Prospectus and any amendments or supplements thereto will contain, all statements which are required to be stated therein by, and will conform to, the requirements of the Act and the Rules and Regulations. The Registration Statement and any amendment thereto do not contain, and will not contain, any untrue statement of a material fact and do not omit, and will not omit, to state any material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus and any amendments and supplements thereto do not contain, and will not contain, any untrue statement of material fact; and do not omit, and will not omit, to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that the Company makes no representations or warranties as to information contained in or omitted from the Registration Statement or the Prospectus, or any such amendment or supplement, in reliance upon, and in conformity with, written information furnished to the Company by or on behalf of any Underwriter through the Representative, specifically for use in the preparation thereof.

(f) The financial statements of the Company, together with related notes and schedules as set forth in the Registration Statement, present fairly the financial position and the results of operations and cash flows of

the Company at the indicated dates and for the indicated periods. Such financial statements and related schedules have been prepared in accordance with generally accepted principles of accounting, consistently applied throughout the periods involved, except as disclosed herein and in the Registration Statement, and all adjustments necessary for a fair presentation of results for such periods have been made. The summary financial and statistical data of the Company included in the Registration Statement presents fairly the information shown therein and such data has been compiled on a basis consistent with the financial statements presented therein and the books and records of the Company.

(g) Arthur Anderson LLP, who have certified certain of the financial statements filed with the Commission as part of the Registration Statement, are independent public accountants as required by the Act and the Rules and Regulations.

(h) There is no action, suit, claim or proceeding pending or, to the knowledge of the Company, threatened against the Company before any court or administrative agency or otherwise which if determined adversely to the Company might result in any material adverse change in the earnings, business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company or prevent the consummation of the transactions contemplated hereby, except as set forth in the Registration Statement.

(i) The Company has good and marketable title to all properties and assets, tangible and intangible, reflected in the financial statements or described in the Registration Statement, subject to no lien, mortgage, pledge, charge or encumbrance of any kind except those reflected in such financial statements (or as described in the Registration Statement) or which are not material. The Company's ownership and license rights in its patents, copyrights, trademarks, service marks, Web sites and other material technology and intellectual property is consistent with (i) the description thereof in the Registration Statement, and (ii) the business needs of the Company. All of the leases and subleases under which the Company holds properties are in full force and effect and the Company has not received notice of any claim that is materially adverse to the rights of the Company under any of such leases or subleases.

(j) The Company has filed all federal, state, local and foreign income tax returns which have been required to be filed and have paid all taxes indicated by said returns and all assessments received by it to the extent that such taxes have become due and are not being contested in good faith. All tax liabilities have been adequately provided for in the financial statements of the Company.

(k) Since the respective dates as of which information is given in the Registration Statement, as it may have been amended or supplemented, there has not been any material adverse change or any development involving a prospective material adverse change in or affecting the earnings, business, management, properties, assets, rights, operations, condition (financial or otherwise), or prospects of the Company, whether or not occurring in the ordinary course of business, and there has not been any material transaction entered into or any material transaction that is probable of being entered into by the Company, other than transactions in the ordinary course of business and changes and transactions described in the Registration Statement, as it may be amended or supplemented. Neither the Company nor the Bank has any material contingent obligations that are not disclosed in the Company's financial statements or elsewhere in the Prospectus included in the Registration Statement.

(l) The Company is not, nor, with the giving of notice or lapse of time or both, will it be, in violation of or in default under its Articles of Incorporation or Bylaws or under any agreement, lease, contract, indenture or other instrument or obligation to which it is a party or by which it, or any of its properties, is bound and which default is of material significance in respect of the condition, financial or otherwise of the Company or the business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company. The execution and delivery of this Agreement and the consummation of the transactions herein

contemplated and the fulfillment of the terms hereof will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company is a party, or of the Articles of Incorporation or Bylaws of the Company or any order, rule or regulation applicable to the Company of any court or of any regulatory body or administrative agency or other governmental body having jurisdiction.

(m) Each approval, consent, order, authorization, designation, declaration or filing by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Company of this Agreement and the consummation of the transactions herein contemplated (except such additional steps as may be required by the Commission, the National Association of Securities Dealers, Inc. (the "NASD") or such additional steps as may be necessary to qualify the Shares for public offering by the Underwriters under state securities or Blue Sky laws) has been obtained or made and is in full force and effect.

(n) The Company holds all material patents, patent rights trademarks, trade names, copyrights, trade secrets, Web sites and licenses of any of the foregoing (collectively, "Intellectual Property Rights") that are necessary to the conduct of its businesses; there is no claim pending or, to the best knowledge of the Company, threatened against the Company or any of their respective officers, directors or employees, in their capacities as such, alleging any infringement of Intellectual Property Rights, or any violation of the terms of any license relating to Intellectual Property Rights, nor does the Company know of any basis for any such claim. The

Company knows of no material infringement by others of Intellectual Property Rights owned by or licensed to the Company. The Company has obtained, is in compliance in all material respect with and maintains in full force and effect all material licenses, certificates, permits, orders or other, similar authorizations granted or issued by any governmental agency (collectively "Government Permits") required to conduct its business as it is presently conducted. No proceeding to revoke, limit or otherwise materially change any Government Permit has been commenced or, to the Company's best knowledge, is threatened against the Company, and the Company has no reason to anticipate that any such proceeding will be commenced against the Company. Except as disclosed or contemplated in the Prospectus, the Company has no reason to believe that any pending application for a Government Permit or any application that is anticipates will be required to conduct business described in the Prospectus will be denied or limited in a manner inconsistent with the Company's business plan as described in the Prospectus.

(o) The Company is in all material respects in compliance with all applicable Environmental Laws. The Company has no knowledge of any past, present or, as anticipated by the Company, future events, conditions, activities, investigation, studies, plans or proposals that (i) would interfere with or prevent compliance with any Environmental Law by the Company or (ii) could reasonably be expected to give rise to any common law or other liability, or otherwise form the basis of a claim, action, suit, proceeding, hearing or investigation, involving the Company and related to Hazardous Substances or Environmental Laws. Except for the prudent and safe use and management of Hazardous Substances in the ordinary course of the Company's business, (i) no Hazardous Substance is or has been used, treated, stored, generated, manufactured or otherwise handled on or at any Facility and (ii) to the Company's best knowledge, no Hazardous Substance has otherwise come to be located in, on or under any Facility. No Hazardous Substances are stored at any Facility except in quantities necessary to satisfy the reasonably anticipated use or consumption by the Company, as the case may be. No litigation, claim, proceeding or governmental investigation is pending regarding any environmental matter for which the Company has been served or otherwise notified or, to the knowledge of the Company, threatened or asserted against the Company, or the officers or directors of the Company in their capacities as such, or any Facility or the Company's business. There are no orders, judgments or decrees of any court or of any governmental agency or instrumentality under any Environmental Law which specifically apply to the Company, any Facility or any of the Company's operations. The Company has not received from a governmental authority or other person (i) any notice that it is a potentially responsible person for any Contaminated site or (ii) any request for information about a site alleged to be

Contaminated or regarding the disposal of Hazardous Substances. There is no litigation or proceeding against any other person by the Company regarding any environmental matter. The Company has disclosed in the Prospectus or made available to the Underwriters and their counsel true, complete and correct copies of any reports, studies, investigations, audits, analyses, tests or monitoring in the possession of or initiated by the Company pertaining to any environmental matter relating to the Company, its past or present operations or any Facility.

For the purposes of the foregoing paragraph, "Environmental Laws" means any applicable federal, state or local statute, regulation, code, rule, ordinance, order, judgment, decree, injunction or common law pertaining in any way to the protection of human health or the environment, including without limitation, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Toxic Substances

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Control Act, the Clean Air Act, the Federal Water Pollution Control Act and any similar or comparable state or local law; "Hazardous Substance" means any hazardous, toxic, radioactive or infectious substance, material or waste as defined, listed or regulated under any Environmental Law; "Contaminated" means the actual existence on or under any real property of Hazardous Substances, if the existence of such Hazardous Substances triggers a requirement to perform any investigatory, remedial, removal or other response action under any Environmental Laws or if such response action legally could be required by any governmental authority; and "Facility" means any property currently owned, leased or occupied by the Company.

(p) The Company has not, nor, to its best knowledge, has any of its affiliates, taken nor does it intend to take, directly or indirectly, any action which is designed to cause or result in, or which constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of the shares of Common Stock to facilitate the sale or resale of the Shares.

(q) The Company is not an "investment company" within the meaning of such term under the Investment Company Act of 1940 and the rules and regulations of the Commission thereunder and will not become an Investment Company as a result of its receipt and investment of the proceeds from the sale of the Shares.

(r) The Company maintains systems of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and all applicable banking regulations and to maintain accountability for Company assets and customer accounts; (iii) access to Company, or customer assets is permitted only in accordance with management's general or specific authorization and applicable banking regulations; and (iv) the recorded accountability for assets is compared with existing Company, and customer assets at reasonable intervals and appropriate action is taken with respect to any differences.

(s) The Company carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar industries.

(t) The Company is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"); no "reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Company would have any liability; the Company has not incurred and does not expect to incur liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "pension plan" or (ii) Sections 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "Code"); and each "pension plan" for which the Company would have any liability that is intended to be qualified under Section 401(a) of the Code

is so qualified in all material respects and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(u) The Company confirms as of the date hereof that it is in compliance with all provisions of Section 1 of Laws of Florida, Chapter 92-198, An Act Relating to Disclosure of Doing Business with Cuba, and the Company further agrees that if it commences engaging in business with the government of Cuba or with any person or affiliate located in Cuba after the date the Registration Statement becomes or has become effective with the Commission or with the Florida Department of Banking and Finance (the "Department"), whichever date is later, or if the information reported or incorporated by reference in the Prospectus, if any, concerning the Company's business with Cuba or with any person or affiliate located in Cuba changes in any material way, the Company will provide the Department notice of such business or change, as appropriate, in a form acceptable to the Department.

(v) The Company is in material compliance with all laws, rules, regulations, orders of any court or administrative agency, operating licenses or other requirements imposed by any governmental body applicable to it, including, without limitation, all applicable laws, rules, regulations, licenses or other governmental standards applicable to the its business; and the conduct of the business of the Company, as the case may be, as described in the Prospectus, will not cause the Company to be in violation of any such requirements.

(w) The Representative's Warrants (as defined in Paragraph (d) of Section 2 hereof) have been authorized for issuance to the Representative or its designees and will, when issued, possess rights, privileges, and characteristics as represented in the most recent form of Representative's Warrants filed as an exhibit to the Registration Statement; the securities to be issued upon exercise of the Representative's Warrants, when issued and delivered against payment therefor in accordance with the terms thereof, will be duly and validly issued, fully paid, nonassessable and free of preemptive rights, and all corporate action required to be taken for the authorization and issuance of the Representative's Warrants, and the securities to be issued upon their exercise, including, without limitation, the reservation of a sufficient number of shares of Common Stock to cover such exercise in full, have been validly and sufficiently taken.

(x) Except as disclosed in the Prospectus, neither the Company nor any of its officers, directors or affiliates have caused any person, other than the Underwriters, to be entitled to reimbursement of any kind, including, without limitation, any compensation that would be includable as underwriter compensation under the NASD's Corporate Financing Rule with respect to the offering of the Shares, as a result of the consummation of such offering based on any activity of such person as a finder, agent, broker, investment adviser or other financial service provider.

(y) Except as described in the Prospectus, the Company does not directly or indirectly control or have a material interest in any other business entity.

(z) The Shares have been approved for listing on the Nasdaq National Market ("NASDAQ") upon the effectiveness of the Registration Statement and the Company has satisfied all of the requirements of NASDAQ for such listing and for the trading of its Common Stock on NASDAQ.

2. PURCHASE, SALE AND DELIVERY OF THE SHARES.

(a) On the basis of the representations, warranties and covenants herein contained, and subject to the conditions herein set forth, the Company agrees to sell to the Underwriters and each Underwriter agrees, severally and not jointly, to purchase, at a price of $____ per Share, the number of Firm Shares set forth opposite the name of each Underwriter in Schedule I hereof, subject to adjustments in accordance with Section 9 hereof.

(b) Payment for the Firm Shares to be sold hereunder is to be made in New York Clearing House funds and, at the option of the Representative, by bank wire to an account specified by the Company, certified or bank cashier's checks drawn to the order of the Company, against either uncertificated delivery of Firm Shares or of certificates therefor (which delivery, if certificated, shall take place in such location in New York, New York as may be specified by the Representative) to the Representative for the several accounts of the Underwriters. Such payment is to be made at the offices of the Representative at the address set forth on the first page of this agreement, at 7:00 a.m., Pacific time, on the third business day after the date of this Agreement or at such other time and date not later than five business days thereafter as you and the Company shall agree upon, such time and date being herein referred to as the "Closing Date." (As used herein, "business day" means a day on which the New York Stock Exchange is open for trading and on which banks in New York are open for business and not permitted by law or executive order to be closed.) Except to the extent uncertificated Firm Shares are delivered at closing, the certificates for the Firm Shares will be delivered in such denominations and in such registrations as the Representative requests in writing not later than the second full business day prior to the Closing Date, and will be made available for inspection by the Representative at least one business day prior to the Closing Date.

(c) In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters to purchase the Option Shares at the price per Share as set forth in the first paragraph of this Section 2. The Company may assign the obligation to deliver the Common Stock component of the Option Shares to certain shareholders of the Company as more fully described in the Prospectus; however, no such assignment shall affect the obligation of the Company to deliver or cause to be delivered securities representing the Option Shares as to which the option is exercised upon such exercise. The option granted hereby may be exercised in whole or in part by giving written notice (i) at any time before the Closing Date and (ii) only once thereafter within 45 days after the date of this Agreement, by the Representative to the Company setting forth the number of Option Shares as to which the Underwriters are exercising the option, the names and denominations in which the Option Shares are to be registered and the time and date at which certificates representing such Shares are to be delivered. The time and date at which certificates for Option Shares are to be delivered shall be determined by the Representative but shall not be earlier than three nor later than 10 full business days after the exercise of such option, nor in any event prior to the Closing Date (such time and date being herein referred to as the "Option Closing Date"). If the date of exercise of the option is three or more days before the Closing Date, the notice of exercise shall set the Closing Date as the Option Closing Date. The option with respect to the Option Shares granted hereunder maybe exercised only to cover over-allotments in the sale of the Firm Shares by the Underwriters. The Representative may cancel such option at any time prior to its expiration by giving written notice of such cancellation to the Company. To the extent, if any, that the option is exercised, payment for the Option Shares shall be made on the Option Closing Date in New York Clearing House funds and, at the option of the Representative, by bank wire to an account specified by the

Company, or certified or bank cashier's check drawn to the order of the Company for the Option Shares to be sold by the Company in consideration either of uncertificated delivery of Option Shares or delivery of certificates therefor (which delivery, if certificated, shall take place in such location in New York, New York as may be specified by the Representative) to the Representative for the several accounts of the Underwriters. Except to the extent uncertificated Option Shares are delivered at closing, the certificates for the Option Shares will be delivered in such denominations and in such registrations as the Representative requests in writing not later than the second full business day prior to the Option Closing Date, and will be made available for inspection by the Representative at least one business day prior to the Option Closing Date.

(d) In addition to the sums payable to the Representative as provided elsewhere herein, the Representative shall be entitled to receive at the Closing, for itself alone and not as Representative of the Underwriters, as additional compensation for its services, purchase warrants (the

"Representative's Warrants") for the purchase of up to 300,000 Shares at a price of $____ per Share, upon the terms and subject to adjustment and conversion as described in the form of Representative's Warrants filed as an exhibit to the Registration Statement.

3. OFFERING BY THE UNDERWRITERS.

It is understood that the several Underwriters are to make a public offering of the Firm Shares as soon as the Representative deems it advisable to do so. The Firm Shares are to be initially offered to the public at the initial public offering price set forth in the Prospectus. The Representative may from time to time thereafter change the public offering price and other selling terms. To the extent, if at all, that any Option Shares are purchased pursuant to Section 2 hereof, the Representative will offer them to the public on the foregoing terms.

It is further understood that you will act as the Representative for the Underwriters in the offering and sale of the Shares in accordance with an Agreement Among Underwriters entered into by you and the several other Underwriters.

4. COVENANTS OF THE COMPANY.

The Company covenants and agrees with the several Underwriters that:

(a) The Company will (A) use its best efforts to cause the Registration Statement to become effective or, if the procedure in Rule 430A of the Rules and Regulations is followed, to prepare and timely file with the Commission under Rule 424(b) of the Rules and Regulations a Prospectus in a form approved by the Representative containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430A of the Rules and Regulations, and (B) not file any amendment to the Registration Statement or supplement to the Prospectus of which the Representative shall not previously have been advised and furnished with a copy or to which the Representative shall have reasonably objected in writing or which is not in compliance with the Rules and Regulations.

(b) The Company will advise the Representative promptly (A) when the Registration Statement or any post-effective amendment thereto shall have become effective, (B) of receipt of any comments from the Commission, (C) of any request of the Commission for amendment of the Registration Statement or for supplement to the Prospectus or for any

additional information, and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus or of the institution of any proceedings for that purpose. The Company will use its best efforts to prevent the issuance of any such stop order preventing or suspending the use of the Prospectus and to obtain as soon as possible the lifting thereof, if issued.

(c) The Company will cooperate with the Representative in endeavoring to qualify the Shares for sale under the securities laws of such jurisdictions as the Representative may reasonably have designated in writing and will make such applications, file such documents, and furnish such information as may be reasonably required for that purpose, provided the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction where it is not now so qualified or required to file such a consent. The Company will, from time to time, prepare and file such statements, reports, and other documents, as are or may be required to continue such qualifications in effect for so long a period as the Representative may reasonably request for distribution of the Shares.

(d) The Company will deliver to, or upon the order of, the Representative, from time to time, as many copies of any Preliminary Prospectus as the Representative may reasonably request. The Company will deliver to, or upon the order of, the Representative during the period when delivery of a Prospectus is required under the Act, as many copies of the Prospectus in final form, or as thereafter amended or supplemented, as the Representative may reasonably request. The Company will deliver to the Representative at or before the Closing Date, four signed copies of the

Registration Statement and all amendments thereto including all exhibits filed therewith, and will deliver to the Representative such number of copies of the Registration Statement (including such number of copies of the exhibits filed therewith that may reasonably be requested), and of all amendments thereto, as the Representative may reasonably request.

(e) The Company will comply with the Act and the Rules and Regulations, and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations of the Commission thereunder, so as to permit the completion of the distribution of the Shares as contemplated in this Agreement and the Prospectus. If during the period in which a prospectus is required by law to be delivered by an Underwriter or dealer, any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Underwriters, it becomes necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances existing at the time the Prospectus is delivered to a purchaser, not misleading, or, if it is necessary at any time to amend or supplement the Prospectus to comply with any law, the Company promptly will prepare and file with the Commission an appropriate amendment to the Registration Statement or supplement to the Prospectus so that the Prospectus as so amended or supplemented will not, in the light of the circumstances existing at the time the Prospectus is so delivered, be misleading, or so that the Prospectus will comply with the law.

(f) The Company will make generally available to its security holders, as soon as it is practicable to do so, but in any event not later than fifteen (15) months after the effective date of the Registration Statement, an earning statement (which need not be audited) in reasonable detail, covering a period of at least twelve (12) consecutive months beginning after the effective date of the Registration Statement, which earning statement shall satisfy the

requirements of Section 11(a) of the Act and Rule 158 of the Rules and Regulations and will advise you in writing when such statement has been so made available.

(g) The Company will, for a period of five (5) years from the Closing Date, deliver to the Representative copies of annual reports and copies of all other documents, reports and information furnished by the Company to its stockholders or filed with any securities exchange pursuant to the requirements of such exchange or with the Commission pursuant to the Act or the Exchange Act. The Company will deliver to the Representative similar reports with respect to significant subsidiaries, as that term is defined in the Rules and Regulations, which are not consolidated in the Company's financial statements.

(h) No offering, sale, short sale or other disposition of any shares of Common Stock of the Company or other securities convertible into or exchangeable or exercisable for shares of Common Stock or derivatives of Common Stock (or agreement therefor) will be made for a period of one year after the date of this Agreement, directly or indirectly, by the Company otherwise than hereunder, or pursuant to contractual obligations existing on the date hereof or pursuant to employee benefit plans in effect on the date hereof, or with the prior written consent of the Representative, which consent will not be unreasonably withheld.

(i) The Company will use its best efforts to cause the listing of the Shares on NASDAQ to remain in effect unless and until (i) such security expires; (ii) such security is listed on another exchange of at least comparable reputation; or (iii) the Company is no longer required to file reports under Section 12 of the Exchange Act.

(j) The Company has caused each officer and director and each person who owns, beneficially or of record, five percent (5%) or more of the shares of the Common Stock outstanding immediately prior to the date hereof to furnish to you, on or prior to the date of this agreement, a letter or letters, in form and substance satisfactory to the Underwriters ("Lockup Agreements"), pursuant to which each such person shall agree (A) not to offer, sell, sell short or otherwise dispose of any shares of Common Stock or other capital stock of the Company, or any other securities convertible, exchangeable or exercisable for Common Stock or derivatives of Common Stock

owned by such person or request the registration for the offer or sale of any of the foregoing (or as to which such person has the right to direct the disposition) for a period of 90 days after the date of this Agreement, directly or indirectly, except with the prior written consent of the Representative; and (B) to give prior written notice to the Representative for a period of one (1) year from the effective date of the Registration Statement, with respect to any sales of Common Stock of the Company pursuant to Rule 144 under the Securities Act or any similar rule.

(k) The Company shall apply the net proceeds of its sale of the Shares as set forth in the Prospectus and shall file such reports with the Commission with respect to the sale of the Shares and the application of the proceeds therefrom as may be required in accordance with Rule 463 under the Act.

(l) The Company shall not invest, or otherwise use the proceeds received by the Company from its sale of the Shares in a manner that would require the Company to register as an investment company under the Investment Company Act of 1940, as amended (the "1940 Act").

(m) The Company will maintain a transfer agent and, if necessary under the jurisdiction of incorporation of the Company, a registrar for the Common Stock.

(n) The Company will not take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, the stabilization or manipulation of the price of any securities of the Company.

5. COSTS AND EXPENSES.

(a) The Representative shall be entitled to reimbursement from the Company, for itself alone and not as Representative of the Underwriters, to a non-accountable expense allowance equal to two percent (2%) of the aggregate initial public offering price of the Firm Shares and any Option Shares purchased by the Underwriters. The Representative shall be entitled to withhold this allowance on the Closing Date related to the purchase of the Firm Shares or the Option Shares, as the case may be.

(b) In addition to the payment described in Paragraph (a) of this Section 5, the Company will pay all costs, expenses and fees incident to the performance of the obligations of the Company under this Agreement, including, without limiting the generality of the foregoing, the following: accounting fees of the Company; the fees and disbursements of counsel for the Company; the cost of printing and delivering to, or as requested by, the Underwriters copies of the Registration Statement, Preliminary Prospectuses, the Prospectus, this Agreement, the NASDAQ listing application, the costs of due diligence investigation of the principals of the Company, the Blue Sky Survey and any supplements or amendments thereto; the filing fees of the Commission; the filing fees and expenses (including any fees and disbursements) incident to securing the required review by the NASD Regulation, Inc. of the underwriting terms and arrangements; the NASDAQ listing fee; and the expenses, including the fees and disbursements of counsel for the Underwriters, incurred in connection with the qualification of the Shares under state securities or Blue Sky laws. Any transfer taxes imposed on the sale of the Shares to the several Underwriters will be paid by the Company. The Company agrees to pay all costs and expenses of the Underwriters, including the fees and disbursements of counsel for the Underwriters, incident to the offer and sale of directed Shares by the Underwriters to employees and persons having business relationships with the Company. The Company shall not, however, be required to pay for any of the Underwriters' expenses (other than those related to qualification under NASD regulation and state securities or Blue Sky laws) except that, if this Agreement shall not be consummated, then the Company shall reimburse the several Underwriters for accountable out-of-pocket expenses, including fees and disbursements of counsel, reasonably incurred in connection with investigating, marketing and proposing to market the Shares or in contemplation of performing their obligations hereunder; but the Company shall not in any event be liable to any of the several Underwriters for damages on account of loss of anticipated profits from the sale by them of the Shares.

6. CONDITIONS OF OBLIGATIONS OF THE UNDERWRITERS.

The several obligations of the Underwriters to purchase the Firm Shares on the Closing Date and the Option Shares, if any, on the Option Closing Date are subject to the accuracy, as of the Closing Date or the Option Closing Date, as the case may be, of the representations and warranties of the Company contained herein, and to the performance by the

Company of their covenants and obligations hereunder and to the following additional conditions:

(a) The Registration Statement and all post-effective amendments thereto shall have become effective and any and all filings required by Rule 424 and Rule 430A of the Rules and Regulations shall have been made, and any request of the Commission for additional information (to be included in the Registration Statement or otherwise) shall have been disclosed to the Representative and complied with to their reasonable satisfaction. No stop order suspending the effectiveness of the Registration Statement, as amended from time to time, shall have been issued and no proceedings for that purpose shall have been taken or, to the knowledge of the Company, shall be contemplated by the Commission and no injunction, restraining order, or order of any nature by a Federal or state court of competent jurisdiction shall have been issued as of the Closing Date which would prevent the issuance of the Shares.

(b) The Representative shall have received on the Closing Date or the Option Closing Date, as the case may be, the opinion of Ater Wynne LLP, counsel for the Company, dated the Closing Date or the Option Closing Date, as the case may be, addressed to the Underwriters (and stating that it may be relied upon by counsel to the Underwriters) to the effect that:

(i) The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Oregon, with corporate power and authority to own or lease its properties and conduct its business as described in the Registration Statement; the Company is duly qualified to transact business in all jurisdictions in which the conduct of its business requires such qualification, or in which the failure to qualify would have a material adverse effect upon the business of the Company.

(ii) The Company has authorized and outstanding capital stock as set forth under the caption "Capitalization" in the Prospectus; the outstanding shares of Common Stock have been duly authorized and validly issued and are fully paid and non-assessable; all of the securities of the Company conform to the description thereof contained in the Prospectus; the certificates for the Common Stock are in due and proper form; the Firm Shares and the Option Shares have been duly authorized and, upon issuance and delivery thereof as contemplated in this Agreement and the Registration Statement, will be validly issued, fully paid and non-assessable; and no preemptive rights of shareholders exist with respect to any of the Shares or the issuance or sale thereof pursuant to any applicable statute or the provisions of the Company's Articles of Incorporation or Bylaws or, to such counsel's best knowledge, pursuant to any contractual obligation. The Representative's Warrants have been authorized for issuance to the Representative and will, when issued, possess rights, privileges, and characteristics as represented in the most recent form of Representative's Warrants filed as an exhibit to the Registration Statement; the securities to be issued upon exercise of the Representative's Warrants when issued and delivered against payment therefor in accordance with the terms of the Representative's Warrants, will be duly and validly issued, fully paid, nonassessable and free of preemptive rights, and all corporate action required to be taken for the authorization and issuance of the Representative's Warrants, and the securities to be issued upon their exercise, has been validly and sufficiently taken.

(iii) Except as described in or contemplated by the Prospectus, to the knowledge of such counsel, there are no outstanding securities of the Company convertible or exchangeable into or evidencing the right to purchase or subscribe for any shares of capital stock of the Company and there are no outstanding or authorized options, warrants or rights of any character obligating the Company to issue any shares of its capital stock or any securities convertible or exchangeable into or evidencing the right to purchase or subscribe for any shares of such stock; and except as described in the Prospectus, to such counsel's best knowledge, no holder of any securities of the Company or any other person has the right, contractual or otherwise, which has not been satisfied or effectively waived, to cause the Company to sell or otherwise issue to them, or to permit them to underwrite the sale of, any of the Shares or the right to have any Common Stock or other securities of the Company included in the Registration Statement or the right, as a result of the filing of the Registration Statement, to require registration under the Act of any shares of Common Stock or other securities of the Company.

(iv) The Registration Statement has become effective under the Act and, to such counsel's best knowledge, no stop order proceedings with respect thereto have been instituted or are pending or threatened under the Act.

(v) The Registration Statement, the Prospectus and each amendment or supplement thereto comply as to form in all material respects with the requirements of the Act and the applicable rules and regulations thereunder (except that such counsel need express no opinion as to the financial statements and related schedules therein).

(vi) The statements under the captions "Shares Eligible for Future Sale" and "Description of Securities" in the Prospectus and in Items 24 and 26 of the Registration Statement, insofar as such statements constitute a summary of documents referred to therein or matters of law, fairly summarize in all material respects the information called for with respect to such documents and matters.

(vii) Such counsel does not know of any contracts or documents required to be filed as exhibits to the Registration Statement or described in the Registration Statement or the Prospectus which are not so filed or described as required, and such contracts and documents as are summarized in the Registration Statement or the Prospectus are fairly summarized in all material respects.

(viii) Such counsel knows of no material legal or governmental proceedings pending or threatened against the Company.

(ix) The execution and delivery of this Agreement and the consummation of the transactions herein contemplated do not and will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, the Articles of Incorporation or Bylaws of the Company, or any agreement or instrument known to such counsel to which the Company is a party or by which the Company may be bound.

(x) This Agreement has been duly authorized, executed and delivered by the Company.

(xi) No approval, consent, order, authorization, designation, declaration or filing by or with any regulatory, administrative or other governmental body is necessary in connection with the execution and delivery of this Agreement and the consummation of the transactions herein contemplated (other than as may be required by the NASD, as to which such counsel need express no opinion) except such as have been obtained or made, specifying the same.

(xii) The Company is not, and will not become, as a result of the consummation of the transactions contemplated by this Agreement, and application of the net proceeds therefrom as described in the Prospectus, required to register as an investment company under the 1940 Act.

In rendering such opinion, such counsel may rely as to matters governed by the laws of states other than Oregon or Federal laws on local counsel in such jurisdictions, provided that in each case such counsel shall state that they believe that they and the Underwriters are justified in relying on such other counsel. In addition to the matters set forth above, the opinion of Ater Wynne LLP shall also include a statement to the effect that nothing has come to the attention of such counsel that has caused them to believe that (i) the Registration Statement, at the time it became effective under the Act (but after giving effect to any modifications incorporated therein pursuant to Rule 430A under the Act) and as of the Closing Date or the Option Closing Date, as the case may be, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and (ii) the Prospectus, or any supplement thereto, on the date it was filed pursuant to the Rules and Regulations and as of the Closing Date or the Option Closing Date, as the case may be, contained an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements, in the light of the circumstances under which they are made, not misleading (except that such counsel need express no view as to financial statements, schedules and statistical information therein).

(c) The Representatives shall have received at the Closing Date or the Option Closing Date, as the case may be, the opinion of Peter Dehlinger & Associates, patent counsel to the Company, dated the Closing Date or the Option Closing Date, as the case may be, addressed to the Underwriters (and stating that it may be relied upon by counsel to the Underwriters) related to the Company's patents and substantially in the form attached hereto as Schedule II hereto.

(d) The Representative shall have received from Weiss, Jensen, Ellis & Howard, counsel for the Underwriters, an opinion dated the Closing Date or the Option Closing Date, as the case may be, substantially to the effect specified in subparagraphs (i), (iv) and (v) of Paragraph (b) of this Section 6. In rendering such opinion Weiss Jensen Ellis & Howard may rely as to all matters governed other than by Federal laws on the opinions of counsel referred to in Paragraph (b) of this Section 6. In addition to the matters set forth above, such opinion shall also include a statement to the effect that nothing has come to the attention of such counsel that has caused them to believe that (i) the Registration Statement, or any amendment thereto, as of the time it became effective under the Act (but after giving effect to any modifications incorporated therein pursuant to Rule 430A under the Act) and as of the Closing Date or the Option Closing Date, as the case may be, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements

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therein not misleading, and (ii) the Prospectus, or any supplement thereto, on the date it was filed pursuant to the Rules and Regulations and as of the Closing Date or the Option Closing Date, as the case may be, contained an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements, in the light of the circumstances under which they are made, not misleading (except that such counsel need express no view as to financial statements, schedules and statistical information therein). With respect to such statement, Weiss Jensen Ellis & Howard may state that their belief is based upon the procedures set forth therein, but is without independent check and verification.

(e) The Representative shall have received at or prior to the Closing Date from Weiss Jensen Ellis & Howard a memorandum or summary, in form and substance satisfactory to the Representative, with respect to the qualification for offering and sale by the Underwriters of the Shares under the state securities or Blue Sky laws of such jurisdictions as the Representative may reasonably have designated to the Company.

(f) The Representative, on behalf of the several Underwriters, shall have received, on each of the dates hereof, the Closing Date and the Option Closing Date, as the case may be, a letter dated the date hereof, the Closing Date or the Option Closing Date, as the case may be, in form and substance satisfactory to the Representative, of Arthur Andersen LLP confirming that they are independent public accountants within the meaning of the Act and the applicable published Rules and Regulations thereunder and

stating that in their opinion the financial statements and schedules examined by them and included in the Registration Statement comply in form in all material respects with the applicable accounting requirements of the Act and the related published Rules and Regulations and containing such other statements and information as is ordinarily included in accountants' "comfort letters" to Underwriters with respect to the financial statements and certain financial and statistical information contained in the Registration Statement and Prospectus.

(g) The Representative shall have received on the Closing Date or the Option Closing Date, as the case may be, a certificate or certificates of the Chief Executive Officer and the Chief Financial Officer of the Company to the effect that, as of the Closing Date or the Option Closing Date, as the case may be, each of them severally represents as follows:

(i) The Registration Statement has become effective under the Act and no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings for such purpose have been taken or are, to his knowledge, contemplated by the Commission;

(ii) The representations and warranties of the Company contained in Section 1 hereof are true and correct as of the Closing Date or the Option Closing Date, as the case may be;

(iii) All filings required to have been made pursuant to Rules 424 or 430A under the Act have been made;

(iv) He has carefully examined the Registration Statement and the Prospectus and, in his opinion, as of the effective date of the Registration Statement, the statements contained in the Registration Statement were true and correct, and such Registration

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Statement and Prospectus did not omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading, and since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement to or an amendment of the Prospectus which has not been so set forth in such supplement or amendment; and

(v) Since the respective dates as of which information is given in the Registration Statement and Prospectus, there has not been any material adverse change or any development involving a prospective material adverse change in or affecting the condition, financial or otherwise, of the Company or the earnings, business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company, whether or not arising in the ordinary course of business.

(h) The Company shall have furnished to the Representative such further certificates and documents confirming the representations and warranties, covenants and conditions contained herein and related matters as the Representative may reasonably have requested.

(i) The Shares have been approved for listing upon notice of issuance on NASDAQ.

(j) The Lockup Agreements described in Section 4(j) are in full force and effect.

The opinions and certificates mentioned in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in all material respects satisfactory to the Representative and to Weiss Jensen Ellis & Howard, counsel for the Underwriters.

If any of the conditions hereinabove provided for in this Section 6 shall not have been fulfilled when and as required by this Agreement to be fulfilled, the obligations of the Underwriters hereunder may be terminated by the Representative by notifying the Company of such termination in writing or by telegram at or prior to the Closing Date or the Option Closing Date, as the case may be.

In such event, the Company and the Underwriters shall not be under any obligation to each other (except to the extent provided in Sections 5 and 8 hereof).

7. CONDITIONS OF THE OBLIGATIONS OF THE COMPANY.

The obligations of the Company to sell and deliver the portion of the Shares required to be delivered as and when specified in this Agreement are subject to the conditions that at the Closing Date or the Option Closing Date, as the case may be, no stop order suspending the effectiveness of the Registration Statement shall have been issued and in effect or proceedings therefor initiated or threatened.

8. INDEMNIFICATION.

(a) The Company agrees to indemnify and hold harmless each Underwriter and each person, if any, who controls any Underwriter within the meaning of the Act, against any losses, claims, damages or liabilities to which such Underwriter or any such controlling person

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may become subject under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto, or (ii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; and will reimburse each Underwriter and each such controlling person upon demand for any legal or other expenses reasonably incurred by such Underwriter or such controlling person in connection with investigating or defending any such loss, claim, damage or liability, action or proceeding or in responding to a subpoena or governmental inquiry related to the offering of the Shares, whether or not such Underwriter or controlling person is a party to any action or proceeding; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement, or omission or alleged omission made in the Registration Statement, any Preliminary Prospectus, the Prospectus, or such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company by or through the Representative specifically for use in the preparation thereof. This indemnity agreement will be in addition to any liability which the Company may otherwise have.

(b) Each Underwriter severally and not jointly will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the Registration Statement and each person, if any, who controls the Company within the meaning of the Act, against any losses, claims, damages or liabilities to which the Company or any such director, officer or controlling person may become subject under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto, or (ii) the omission or the alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer or controlling person in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding; provided, however, that each Underwriter will be liable in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission has been made in the Registration Statement, any Preliminary Prospectus, the Prospectus or such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company by or through the Representative specifically for use in the preparation thereof. This indemnity agreement will be in addition to any liability which such Underwriter may otherwise have.

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which

indemnity may be sought pursuant to this Section 8, such person (the "indemnified party") shall promptly notify the person against whom such indemnity may be sought (the "indemnifying party") in writing. No indemnification provided for in Section 8(a) or (b) shall be available to any party who shall fail to give notice as provided in this Section 8(c) if the party to whom notice was not given was unaware of the proceeding to which such notice would have related and was materially prejudiced by the failure to give such notice, but the failure to give such notice shall not relieve the indemnifying party or

parties from any liability which it or they may have to the indemnified party for contribution or otherwise than on account of the provisions of Section 8(a) or (b). In case any such proceeding shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party and shall pay as incurred the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel at its own expense. Notwithstanding the foregoing, the indemnifying party shall pay as incurred (or within 30 days of presentation) the fees and expenses of the counsel retained by the indemnified party in the event (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel, (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them or (iii) the indemnifying party shall have failed to assume the defense and employ counsel acceptable to the indemnified party within a reasonable period of time after notice of commencement of the action. It is understood that the indemnifying party shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees and expenses of more than one separate firm for all such indemnified parties. Such firm shall be designated in writing by you in the case of parties indemnified pursuant to Section 8(a) and by the Company in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, the indemnifying party will not, without the prior written consent of the indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding of which indemnification may be sought hereunder (whether or not any indemnified party is an actual or potential party to such claim, action or proceeding) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action or proceeding.

(d) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or (b) above in respect of any losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities, (or actions or proceedings in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bears to the total

underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to above in this Section 8(d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), (i) no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Shares purchased by such Underwriter, and (ii) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 8(d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) In any proceeding relating to the Registration Statement, any Preliminary Prospectus, the Prospectus or any supplement or amendment thereto, each party against whom contribution may be sought under this Section 8 hereby consents to the jurisdiction of any court having jurisdiction over any other contributing party, agrees that process issuing from such court may be served upon him or it by any other contributing party and consents to the service of such process and agrees that any other contributing party may join him or it as an additional defendant in any such proceeding in which such other contributing party is a party.

(f) Any losses, claims, damages, liabilities or expenses for which an indemnified party is entitled to indemnification or contribution under this Section 8 shall be paid by the indemnifying party to the indemnified party as such losses, claims, damages, liabilities or expenses are incurred. The indemnity and contribution agreements contained in this Section 8 and the representations and warranties of the Company set forth in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of any Underwriter or any person controlling any Underwriter, the Company, its directors or officers or any persons controlling the Company, (ii) acceptance of any Shares and payment therefor hereunder, and (iii) any termination of this Agreement. A successor to any Underwriter, or to the Company, its directors or officers, or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Section 8.

9. DEFAULT BY UNDERWRITERS.

If on the Closing Date or the Option Closing Date, as the case may be, any Underwriter shall fail to purchase and pay for the portion of the Shares which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), you, as Representative of the Underwriters, shall use reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such amounts as may be agreed upon and upon the terms set forth herein, the Firm Shares or Option Shares, as the case may be, which the defaulting Underwriter or Underwriters failed to

purchase. If during such 36 hours you, as such Representative, shall not have procured such other Underwriters, or any others, to purchase the Firm Shares or Option Shares, as the case may be, agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate number of Shares with respect to which such default shall occur does not exceed 10% of the Firm Shares or Option Shares, as the case may be, covered hereby, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Firm Shares or Option Shares, as the case may be, which they are obligated to purchase hereunder, to purchase the Firm Shares or Option Shares, as the case may be, which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate number of Firm Shares or Option Shares, as the case may be, with respect to which such default shall occur exceeds 10% of the Firm Shares or Option Shares, as the case may be, covered hereby, the Company or you as the Representative of the Underwriters will have the right, by written notice given within the next 36-hour period to the parties to this Agreement, to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company except to the extent provided in Section 8 hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Section 9, the Closing Date or Option Closing Date, as the case may be, may be postponed for such period, not exceeding seven days, as you, as Representative, may determine in order that the required changes in the Registration Statement or in the Prospectus or in any other documents or arrangements may be effected. The term "Underwriter" includes any person substituted for a defaulting Underwriter. Any action taken under this Section 9 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

10. NOTICES.

All communications hereunder shall be in writing and, except as otherwise provided herein, will be mailed, delivered, telecopied or telegraphed and confirmed as follows: if to the Underwriters, to Paulson Investment Company, Inc., 811 SW Naito Parkway, Portland, Oregon 97204, Attention: Chester L.F. Paulson; with a copy to Weiss , Jensen, Ellis, & Howard, 111 S.W. Fifth Avenue, Suite 2300, Portland, Oregon 97204, Attention: Mark A. von Bergen; if to the Company, to AVI BioPharma, Inc., at One S.W. Columbia, Suite 1105, Portland, Oregon 97258, Attention: Denis R. Burger; with a copy to Ater Wynne LLP, 222 S.W. Columbia, Suite 1800, Portland, Oregon 97201, Attention: Byron W. Milstead.

11. TERMINATION.

This Agreement may be terminated by you by notice to the Company as follows:

(a) at any time prior to the earlier of (i) the time the Shares are released by you for sale by notice to the Underwriters, or (ii) 11:30 a.m. on the first business day following the date of this Agreement;

(b) at any time prior to the Closing Date if any of the following has occurred: (i) since the respective dates as of which information is given in the Registration Statement and the Prospectus, any material adverse change or any development involving a prospective material adverse change in or affecting the condition, financial or otherwise, of the Company, the earnings, business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company, whether or not arising in the ordinary course of business, (ii) any outbreak or escalation of hostilities or declaration of war or national emergency or other national or international calamity or crisis or change in economic or political conditions if the effect of such outbreak, escalation, declaration, emergency, calamity, crisis or change on the financial markets of the United States would, in your reasonable judgment, make it impracticable to market the Shares or to enforce contracts for the sale of the Shares, (iii) the Dow Jones Industrial Average shall have fallen by 15 percent or more from its closing price on the day immediately preceding the date that the Registration Statement is declared effective by the Commission, (iv) suspension of trading in securities generally on the New York Stock Exchange or the American Stock Exchange or limitation on prices (other than limitations on hours or numbers of days of trading) for securities on either such Exchange, (v) the enactment, publication, decree or other promulgation of any statute,

regulation, rule or order of any court or other governmental authority which in your opinion materially and adversely affects or may materially and adversely affect the business or operations of the Company, (vi) declaration of a banking moratorium by United States or New York State authorities, (vii) any downgrading in the rating of the Company's debt securities by any "nationally recognized statistical rating organization" (as defined for purposes of Rule 436(g) under the Exchange Act); (viii) the suspension of trading of the Common Stock or the Warrants by the Commission or NASDAQ, or (ix) the taking of any action by any governmental body or agency in respect of its monetary or fiscal affairs which in your reasonable opinion has a material adverse effect on the securities markets in the United States; or

(c) as provided in Sections 6 and 9 of this Agreement.

12. SUCCESSORS.

This Agreement has been and is made solely for the benefit of the Underwriters, the Company and their respective successors, executors, administrators, heirs and assigns, and the officers, directors and controlling persons referred to herein, and no other person will have any right or obligation hereunder. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign merely because of such purchase.

13. INFORMATION PROVIDED BY UNDERWRITERS.

The Company and the Underwriters acknowledge and agree that the only information furnished or to be furnished by any Underwriter to the Company for inclusion in the Prospectus or the Registration Statement consists of the information set forth in the last paragraph on the front cover page (insofar as such information relates to the Underwriters), legends required by Item 502(b) of Regulation S-K under the Act and the information under the caption "Underwriting" in the Prospectus.

14. MISCELLANEOUS.

The reimbursement, indemnification and contribution agreements contained in this Agreement and the representations, warranties and covenants in this Agreement shall remain in full force and effect regardless of (a) any termination of this Agreement, (b) any investigation made by or on behalf of any Underwriter or controlling person thereof, or by or on behalf of the Company or its directors or officers and (c) delivery of and payment for the Shares under this Agreement.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of Oregon. All disputes relating to this Underwriting Agreement shall be adjudicated before a court located in Multnomah County, Oregon to the exclusion of all other courts that might have jurisdiction.

If the foregoing letter is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicates hereof, whereupon it will become a binding agreement among the Company and the several Underwriters in accordance with its terms.

Very truly yours,

AVI BIOPHARMA, INC.

By: _____
Denis R. Burger, Ph.D., President and
Chief Executive Officer

The foregoing Underwriting Agreement is hereby confirmed and accepted as of the date first above written.

PAULSON INVESTMENT COMPANY, INC.

As Representative of the several
Underwriters listed on Schedule I

By: _____
Authorized Officer

SCHEDULE I

SCHEDULE OF UNDERWRITERS

Underwriter	Number of Firm Shares to be Purchased
Paulson Investment Company, Inc.	
TOTAL:	

First Amendment to Bylaws of AVI BioPharma, Inc.

Article 1, Section 1.01. of the Company's Bylaws has been amended in its entirety to read as follows:

Section 1.01. ANNUAL MEETING: The annual meeting of the stockholders shall be held each year at a date, time and place as determined by the Board of Directors. At such meeting the stockholders entitled to vote shall elect candidates to fill positions to be vacated by members of the Board of Directors whose terms end as of the date of the annual meeting for that year, and to fill any new positions arising due to expansion of the Board of Directors which have not been filled by the Board.

Article 2, Section 2.01. of the Company's Bylaws has been amended in its entirety to read as follows:

Section 2.01. NUMBER AND ELECTION OF DIRECTORS: The number of directors of the corporation shall be determined from time to time by the Board of Directors, and within such limits, such number shall be fixed and increased or decreased from time to time by resolution of the Board of Directors. If the number of directors is fixed by the Board of Directors at six or less, the directors shall hold office until the next annual meeting of shareholders and until their successors have been elected and qualified. If the number of directors is fixed by the Board of Directors at six or more, the directors shall be divided into two classes designated Class I and Class II, each class to be as nearly equal in number as possible. The directors elected at the 1999 annual meeting of shareholders shall be designated as Class I and the term of office shall expire at the 2001 annual meeting of shareholders. The directors elected at the 2000 annual meeting of shareholders shall be designated as Class II and the term of office shall expire at the 2002 annual meeting of shareholders. At each annual meeting of shareholders, each class of directors elected to succeed those directors whose terms expire shall be elected to serve for two-year terms and until their successors are elected and qualified, so that the term of one class of directors will expire each year. When the number of directors is changed within the limits provided herein, any newly created directorships, or any decrease in directorships, shall be so apportioned among the classes as to make all classes as nearly equal as possible, provided that no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent directors. Directors need not be residents of the State of Oregon or shareholders of the Corporation.

THIS WARRANT HAS NOT BEEN REGISTERED
UNDER THE SECURITIES ACT OF 1933
AND IS NOT TRANSFERABLE
EXCEPT AS PROVIDED HEREIN

AVI BIOPHARMA, INC.

PURCHASE WARRANT

ISSUED TO:

PAULSON INVESTMENT COMPANY, INC.

EXERCISABLE TO PURCHASE

300,000 SHARES OF COMMON STOCK

OF

AVI BIOPHARMA, INC.

Void after _____, 2005

This is to certify that, for value received and subject to the terms and conditions set forth below, the Warrantholder (hereinafter defined) is entitled to purchase, and the Company (hereinafter defined) promises and agrees to sell and issue to the Warrantholder, at any time on or after _____, 2001 and on or before _____, 2005, up to 300,000 shares of the Company's common stock at the Exercise Price (hereinafter defined).

This Warrant Certificate is issued subject to the following terms and conditions:

1. DEFINITIONS OF CERTAIN TERMS. Except as may be otherwise clearly required by the context, the following terms have the following meanings:

(a) "Act" means the Securities Act of 1933, as amended.

(b) "Cashless Exercise" means an exercise of Warrants in which, in lieu of payment of the Exercise Price, the Holder elects to receive a lesser number of Securities such that the value of the Securities that such Holder would otherwise have been entitled to receive but has agreed not to receive, as determined by the closing price of such Securities on the date of exercise or, if such date is not a trading day, on the next prior trading day, is equal to the Exercise Price with respect to such exercise. A Holder may only elect a Cashless Exercise if the Securities issuable by the Company on such exercise are publicly traded securities.

(c) "Closing Date" means the date on which the Offering is closed.

(d) "Commission" means the Securities and Exchange Commission.

(e) "Common Stock" means the common stock, $0.0001 par value, of the Company.

(f) "Company" means AVI BioPharma, Inc., an Oregon corporation.

(g) "Company's Expenses" means any and all expenses payable by the Company or the Warrantholder in connection with an offering described in Section 6 hereof, except Warrantholder's Expenses.

(h) "Effective Date" means the date on which the Registration Statement is declared effective by the Commission.

(i) "Exercise Price" means the price at which the Warrantholder may purchase one Share upon exercise of Warrants as determined from time to time

pursuant to the provisions hereof. The initial Exercise Price is $____ per Share.

(j) "Offering" means the public offering of Common Stock made pursuant to the Registration Statement.

(k) "Participating Underwriter" means any underwriter participating in the sale of the Securities pursuant to a registration under Section 6 of this Warrant Certificate.

(l) "Registration Statement" means the Company's registration statement (File No. 333 -_____) as amended on the Closing Date.

(m) "Rules and Regulations" means the rules and regulations of the Commission adopted under the Act.

(n) "Securities" means the securities obtained or obtainable upon exercise of the Warrant or securities obtained or obtainable upon exercise, exchange, or conversion of such securities.

(o) "Share" or "Shares" refers to one or more shares of Common Stock issuable on exercise of the Warrant.

(p) "Warrant Certificate" means a certificate evidencing the Warrant or a portion thereof.

(q) "Warrantholder" means a record holder of the Warrant or Securities. The initial Warrantholder is Paulson Investment Company, Inc.

(r) "Warrantholder's Expenses" means the sum of (i) the aggregate amount of cash payments made to an underwriter, underwriting syndicate, or agent in connection with an offering described in Section 6 hereof multiplied by a fraction the numerator of which is the aggregate sales price of the Securities sold by such underwriter, underwriting syndicate, or agent in such offering and the denominator of which is the aggregate sales price of all of the securities sold by such underwriter, underwriting syndicate, or agent in such offering and (ii) all out-of-pocket expenses of the Warrantholder, except for the fees and disbursements of one firm retained as legal counsel for the Warrantholder that will be paid by the Company.

(s) "Warrant" means the warrant evidenced by this certificate, any similar certificate issued in connection with the Offering, or any certificate obtained upon transfer or partial exercise of the Warrant evidenced by any such certificate.

2. EXERCISE OF WARRANTS. All or any part of the Warrant may be exercised commencing on the first anniversary of the Effective Date and ending at 5 p.m. Pacific Time on the fifth anniversary of the Effective Date by surrendering this Warrant Certificate, together with appropriate instructions, duly executed by the Warrantholder or by its duly authorized attorney, at the office of the Company, One S.W. Columbia, Suite 1105, Portland, Oregon 97258, Attention: Denis R. Burger, Ph.D., or at such other office or agency as the Company may designate. The date on which such instructions are received by the Company shall be the date of exercise. If the Holder has elected a Cashless Exercise, such instructions shall so state. Upon receipt of notice of exercise, the Company shall immediately instruct its transfer agent to prepare certificates for the Securities to be received by the Warrantholder upon completion of the Warrant exercise. When such certificates are prepared, the Company shall notify the Warrantholder and deliver such certificates to the Warrantholder or in accordance with the Warrantholder's instructions immediately upon payment in full by the Warrantholder, in lawful money of the United States, of the Exercise Price payable with respect to the Securities being purchased, if any. If the Warrantholder shall represent and warrant that all applicable registration and prospectus delivery requirements for their sale have been complied with upon sale of the Securities received upon exercise of the Warrant, such certificates shall not bear a legend with respect to the Securities Act of 1933.

If fewer than all the Securities purchasable under the Warrant are purchased, the Company will, upon such partial exercise, execute and deliver

to the Warrantholder a new Warrant Certificate (dated the date hereof), in form and tenor similar to this Warrant Certificate, evidencing that portion of the Warrant not exercised. The Securities to be obtained on exercise of the Warrant will be deemed to have been issued, and any person exercising the Warrants will be deemed to have become a holder of record of those Securities, as of the date of the payment of the Exercise Price.

3. ADJUSTMENTS IN CERTAIN EVENTS. The number, class, and price of the Stock are subject to adjustment from time to time upon the happening of certain events as follows:

(a) If the outstanding shares of the Company's Common Stock are divided into a greater number of shares or a dividend in stock is paid on the Common Stock, the number of Shares for which the Warrant is then exercisable will be proportionately increased and the Exercise Price will be proportionately reduced; and, conversely, if the outstanding shares of Common Stock are combined into a smaller number of shares of Common Stock, the number of Shares for which the Warrant is then exercisable will be proportionately reduced and the Exercise Price will be proportionately increased. The increases and reductions provided for in this subsection 3(a) will be made with the intent and, as nearly as practicable, the effect that neither the percentage of the total equity of the Company obtainable on exercise of the Warrants nor the price payable for such percentage upon such exercise will be affected by any event described in this subsection 3(a).

(b) In case of any change in the Common Stock through merger, consolidation, reclassification, reorganization, partial or complete liquidation, purchase of substantially all the assets of the Company, or other change in the capital structure of the Company, then, as a

condition of such change, lawful and adequate provision will be made so that the holder of this Warrant Certificate will have the right thereafter to receive upon the exercise of the Warrant the kind and amount of shares of stock or other securities or property to which he would have been entitled if, immediately prior to such event, he had held the number of Shares obtainable upon the exercise of the Warrant. In any such case, appropriate adjustment will be made in the application of the provisions set forth herein with respect to the rights and interest thereafter of the Warrantholder, to the end that the provisions set forth herein will thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the exercise of the Warrant. The Company will not permit any change in its capital structure to occur unless the issuer of the shares of stock or other securities to be received by the holder of this Warrant Certificate, if not the Company, agrees to be bound by and comply with the provisions of this Warrant Certificate.

(c) When any adjustment is required to be made in the number of Shares or other securities or property purchasable upon exercise of the Warrant, the Company will promptly determine the new number of such Shares or other securities or property purchasable upon exercise of the Warrant and (i) prepare and retain on file a statement describing in reasonable detail the method used in arriving at the new number of such Shares or other securities or property purchasable upon exercise of the Warrant and (ii) cause a copy of such statement to be mailed to the Warrantholder within thirty (30) days after the date of the event giving rise to the adjustment.

(d) No fractional shares of Common Stock or other securities will be issued in connection with the exercise of the Warrant, but the Company will pay, in lieu of fractional shares, a cash payment therefor on the basis of the mean between the bid and asked prices of the Common Stock in the over-the-counter market or the closing price on a national securities exchange on the day immediately prior to exercise.

(e) If securities of the Company or securities of any subsidiary of the Company are distributed pro rata to holders of Common Stock, such number of such securities will be distributed to the Warrantholder or his assignee upon exercise of this Warrant as the Warrantholder or assignee would have been entitled to if the portion of the Warrant evidenced by this Warrant Certificate had been exercised prior to the record date for such distribution. The provisions with respect to adjustment of the Common Stock provided in this Section 3 will also apply to the securities to which the

Warrantholder or his assignee is entitled under this subsection 3(e).

(f) Notwithstanding anything herein to the contrary, there will be no adjustment made hereunder on account of the sale of the Shares or other Securities purchasable upon exercise of the Warrant.

4. RESERVATION OF SECURITIES. The Company agrees that the number of shares of Common Stock or other Securities sufficient to provide for the exercise of the Warrant upon the basis set forth above will at all times during the term of the Warrant be reserved for exercise.

5. VALIDITY OF SECURITIES. All Securities delivered upon the exercise of the Warrant will be duly and validly issued in accordance with their terms, and the Company will pay all documentary and transfer taxes, if any, in respect of the original issuance thereof upon exercise of the Warrant.

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6. REGISTRATION OF SECURITIES ISSUABLE ON EXERCISE OF WARRANT CERTIFICATE.

(a) The Company will register the Shares with the Commission pursuant to the Act so as to allow the unrestricted sale of the Shares to the public from time to time commencing on the first anniversary of the Effective Date and ending at 5:00 p.m. Pacific Time on the fifth anniversary of the Effective Date (the "Registration Period"). The Company will also file such applications and other documents necessary to permit the sale of the Shares to the public during the Registration Period in those states in which the Shares were qualified for sale in the Offering or such other states as the Company and the Warrantholder agree to. In order to comply with the provisions of this Section 6(a), the Company is not required to file more than one registration statement. No registration right of any kind, "piggyback" or otherwise, will last longer than five (5) years from the Effective Date.

(b) The Company will pay all of the Company's Expenses and each Warrantholder will pay its pro rata share of the Warrantholder's Expenses relating to the registration, offer, and sale of the Shares.

(c) Except as specifically provided herein, the manner and conduct of the registration, including the contents of the registration, will be entirely in the control and at the discretion of the Company. The Company will file such post-effective amendments and supplements as may be necessary to maintain the currency of the registration statement during the period of its use. In addition, if the Warrantholder participating in the registration is advised by counsel that the registration statement, in their opinion, is deficient in any material respect, the Company will use its best efforts to cause the registration statement to be amended to eliminate the concerns raised.

(d) The Company will furnish to the Warrantholder the number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as it may reasonably request in order to facilitate the disposition of Securities owned by it.

(e) The Company will, at the request of Warrantholders holding at least fifty percent (50%) of the then outstanding Warrants, (i) furnish an opinion of the counsel representing the Company for the purposes of the registration pursuant to this Section 6, addressed to the Warrantholders and any Participating Underwriter, (ii) furnish an appropriate letter from the independent public accountants of the Company, addressed to the Warrantholders and any Participating Underwriter, and (iii) make representations and warranties to the Warrantholders and any Participating Underwriter. A request pursuant to this subsection (e) may be made on three occasions. The documents required to be delivered pursuant to this subsection (e) will be dated within ten days of the request and will be, in form and substance, equivalent to similar documents furnished to the underwriters in connection with the Offering, with such changes as may be appropriate in light of changed circumstances.

7. Indemnification in Connection with Registration.

(a) If any of the Securities are registered, the Company will indemnify and hold harmless each selling Warrantholder, any person who controls any selling Warrantholder within the meaning of the Act, and any Participating Underwriter against any losses, claims, damages, or liabilities, joint or several, to which any Warrantholder, controlling person, or Participating

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Underwriter may be subject under the Act or otherwise; and it will reimburse each Warrantholder, each controlling person, and each Participating Underwriter for any legal or other expenses reasonably incurred by the Warrantholder, controlling person, or Participating Underwriter in connection with investigating or defending any such loss, claim, damage, liability, or action, insofar as such losses, claims, damages, or liabilities, joint or several (or actions in respect thereof), arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained, on the effective date thereof, in any such registration statement or any preliminary prospectus or final prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that the Company will not be liable in any case to the extent that any loss, claim, damage, or liability arises out of or is based upon any untrue statement or alleged untrue statement or omission or alleged omission made in any registration statement, preliminary prospectus, final prospectus, or any amendment or supplement thereto, in reliance upon and in conformity with written information furnished by a Warrantholder for use in the preparation thereof. The indemnity agreement contained in this subparagraph (a) will not apply to amounts paid to any claimant in settlement of any suit or claim unless such payment is first approved by the Company, such approval not to be unreasonably withheld.

(b) Each selling Warrantholder, as a condition of the Company's registration obligation, will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed any registration statement or other filing or any amendment or supplement thereto, and any person who controls the Company within the meaning of the Act, against any losses, claims, damages, or liabilities to which the Company or any such director, officer, or controlling person may become subject under the Act or otherwise, and will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, or controlling person in connection with investigating or defending any such loss, claim, damage, liability, or action, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any untrue or alleged untrue statement of any material fact contained in said registration statement, any preliminary or final prospectus, or other filing, or any amendment or supplement thereto, or arise out of or are based upon the omission or the alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, but only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission was made in said registration statement, preliminary or final prospectus, or other filing, or amendment or supplement, in reliance upon and in conformity with written information furnished by such Warrantholder for use in the preparation thereof; provided, however, that the indemnity agreement contained in this subparagraph (b) will not apply to amounts paid to any claimant in settlement of any suit or claim unless such payment is first approved by the Warrantholder, such approval not to be unreasonably withheld.

(c) Promptly after receipt by an indemnified party under subparagraphs (a) or (b) above of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party, notify the indemnifying party of the commencement thereof; but the omission to notify the indemnifying party will not relieve it from any liability that it may have to any indemnified party otherwise than under subparagraphs (a) and (b).

(d) If any such action is brought against any indemnified party and

it notifies an indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate in, and, to the extent that it may wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party; and after notice from the indemnifying party to such indemnified party of its election to assume the defense thereof, the indemnifying party will not be liable to such indemnified party for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation.

8. RESTRICTIONS ON TRANSFER. This Warrant Certificate and the Warrant may not be sold, transferred, assigned or hypothecated for a one-year period after the Effective Date except to underwriters of the Offering or to individuals who are either a partner or an officer of such an underwriter or by will or by operation of law. The Warrant may be divided or combined, upon request to the Company by the Warrantholder, into a certificate or certificates evidencing the same aggregate number of Warrants.

9. NO RIGHTS AS A SHAREHOLDER. Except as otherwise provided herein, the Warrantholder will not, by virtue of ownership of the Warrant, be entitled to any rights of a shareholder of the Company but will, upon written request to the Company, be entitled to receive such quarterly or annual reports as the Company distributes to its shareholders.

10. NOTICE. Any notices required or permitted to be given hereunder will be in writing and may be served personally or by mail; and if served will be addressed as follows:

If to the Company:

AVI BioPharma, Inc.
One S.W. Columbia, Suite 1105
Portland, Oregon 97258
Attention: Denis R. Burger, Ph.D.

If to the Warrantholder:

at the address furnished
by the Warrantholder to the
Company for the purpose of
notice.

Any notice so given by mail will be deemed effectively given 48 hours after mailing when deposited in the United States mail, registered or certified mail, return receipt requested, postage prepaid and addressed as specified above. Any party may by written notice to the other specify a different address for notice purposes.

11. APPLICABLE LAW. This Warrant Certificate will be governed by and construed in accordance with the laws of the State of Oregon, without reference to conflict of laws principles thereunder. All disputes relating to this Warrant Certificate shall be tried before the courts of Oregon located in Multnomah County, Oregon to the exclusion of all other courts that might have jurisdiction.

Dated as of _____, 2000

AVI BIOPHARMA, INC.

By: _____
Denis R. Burger, Ph.D.,
President and Chief Executive Officer

AGREED AND ACCEPTED AS OF _____, 2000

PAULSON INVESTMENT COMPANY, INC.

By:_____
Lorraine Maxfield,
Senior Vice President -- Research

EXHIBIT 5.1

ATER WYNNE LLP
222 S.W. Columbia, Suite 1800
Portland, Oregon 97201
(503) 226-1191 (Phone)
(503) 226-0079 (Fax)

June 16, 2000

Board of Directors
AVI BioPharma, Inc.
One S.W. Columbia Street, Suite 1105
Portland, OR 97258

In connection with the public offering of up to 3,450,000 shares of common stock, par value $0.0001 per share (the "Common Stock"), of AVI BioPharma, Inc., an Oregon corporation (the "Company"), under the Registration Statement on Form S-1 (the "Registration Statement") and the proposed sale of the Common Stock pursuant to the terms of an underwriting agreement (the "Underwriting Agreement") to be entered into by and among the Company and Paulson Investment Company, Inc., as representative of the several underwriters, we have examined such corporate records, certificates of public officials and officers of the Company and other documents as we have considered necessary or proper for the purpose of this opinion.

Based on the foregoing and having regard to legal issues which we deem relevant, it is our opinion that the shares of Common Stock to be sold pursuant to the Underwriting Agreement, when such shares have been delivered against payment therefor as contemplated by the Underwriting Agreement, will be validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the above-mentioned Registration Statement and to the reference to this firm under the caption "Legal Matters" in the prospectus constituting a part of the Registration Statement. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required to be filed pursuant to Section 7 of the Securities Act of 1933, as amended, or the rules thereunder. This opinion has been prepared solely for your use in connection with the Registration Statement and should not be quoted in whole or in part or otherwise be referred to, nor be relied upon by, nor be filed with or furnished to any governmental agency or other person or entity, except as otherwise provided in this paragraph, without the prior written consent of this firm.

Very truly yours,

/s/ Ater Wynne LLP

ATER WYNNE HEWITT DODSON & SKERRITT, LLP

AVI BIOPHARMA INC.
1992 STOCK INCENTIVE PLAN

1. PURPOSE. The purpose of this Stock Incentive Plan (the "Plan") is to enable AVI BIOPHARMA Inc. (the "Company") to attract and retain the services of (1) selected employees, officers and directors of the Company or of any subsidiary of the Company and (2) selected nonemployee agents, consultants, advisors, persons involved in the sale or distribution of the Company's products and independent contractors of the Company or any subsidiary.

2. SHARES SUBJECT TO THE PLAN. Subject to adjustment as provided below and in paragraph 14, the shares to be offered under the Plan shall consist of Common Stock of the Company, and the total number of shares of Common Stock that may be issued under the Plan shall not exceed 3,200,000 shares. The shares issued under the Plan may be authorized and unissued shares or reacquired shares. If an option, stock appreciation right or performance unit granted under the Plan expires, terminates or is cancelled, the unissued shares subject to such option, stock appreciation right or performance unit shall again be available under the Plan. If shares sold or awarded as a bonus under the Plan are forfeited to the Company or repurchased by the Company, the number of shares forfeited or repurchased shall again be available under the Plan.

3. EFFECTIVE DATE AND DURATION OF PLAN.

(a) EFFECTIVE DATE. The Plan shall become effective as of June 3, 1992. No option, stock appreciation right or performance unit granted under the Plan to an officer who is subject to Section 16(b) of the Securities Exchange Act of 1934, as amended (an "Officer") or a director shall become exercisable, however, until the Plan is approved by the affirmative vote of the holders of a majority of the shares of Common Stock represented at a shareholders meeting at which a quorum is present and any such awards under the Plan prior to such approval shall be conditioned on and subject to such approval. Subject to this limitation, options, stock appreciation rights and performance units may be granted and shares may be awarded as bonuses or sold under the Plan at any time after the effective date and before termination of the Plan.

(b) DURATION. The Plan shall continue in effect until all shares available for issuance under the Plan have been issued and all restrictions on such shares have lapsed. The Board of Directors may suspend or terminate the Plan at any time except with respect to options, performance units and shares subject to restrictions then outstanding under the Plan. Termination shall not affect any outstanding options, any right of the Company to repurchase shares or the forfeitability of shares issued under the Plan.

4. ADMINISTRATION.

(a) BOARD OF DIRECTORS. The Plan shall be administered by the Board of Directors of the Company, which shall determine and designate from time to time the individuals to whom awards shall be made, the amount of the awards and the other terms and conditions of the awards. Subject to the provisions of the Plan, the Board of Directors may from time to time adopt and amend rules and regulations relating to administration of the Plan, advance the lapse of any waiting period, accelerate any exercise date, waive or modify any restriction applicable to shares (except those restrictions imposed by law) and make all other determinations in the judgment of the Board of Directors necessary or desirable for the administration of the Plan. The interpretation and construction of the provisions of the Plan and related agreements by the Board of Directors shall be final and conclusive. The Board of Directors may correct any defect or supply any omission or reconcile any inconsistency in the Plan or in any related agreement in the manner and to the extent it shall deem expedient to carry the Plan into effect, and it shall be the sole and final judge of such expediency.

(b) COMMITTEE. The Board of Directors may delegate to a

committee of the Board of Directors or specified officers of the Company, or both (the "Committee") any or all authority for administration of the Plan. If authority is delegated to a Committee, all references to the Board of Directors in the Plan shall mean and relate to the Committee except (i) as otherwise provided by the Board of Directors, (ii) that only the Board of Directors may amend or terminate the Plan as provided in paragraphs 3 and 16 and (iii) that a Committee including officers of the Company shall not be permitted to grant options to persons who are officers of the Company. If awards are to be made under the Plan to Officers or directors, authority for selection of Officers and directors for participation and decisions concerning the timing, pricing and amount of a grant or award, if not determined under a formula meeting the requirements of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, shall be delegated to a committee consisting of two or more disinterested directors.

5. TYPES OF AWARDS; ELIGIBILITY. The Board of Directors may, from time to time, take the following action, separately or in combination, under the Plan: (i) grant Incentive Stock Options, as defined in Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), as provided in paragraphs 6(a) and 6(b); (ii) grant options other than Incentive Stock Options ("Non-Statutory Stock Options") as provided in paragraphs 6(a) and 6(c); (iii) award stock bonuses as provided in paragraph 7; (iv) sell shares subject to restrictions as provided in paragraph 8; (v) grant stock appreciation rights as provided in paragraph 9; (vi) grant cash bonus rights as provided in paragraph 10; (vii) grant performance units as provided in paragraph 11 and (viii) grant foreign qualified awards as provided in paragraph 12. Any such awards may be made to employees, including employees who are officers or directors, and to other individuals described in paragraph 1 who the Board of Directors believes have made or will make an important contribution to the Company or any subsidiary of the Company; provided, however, that only employees of the Company shall be eligible to receive Incentive Stock Options under the Plan. The Board of Directors shall select the individuals to whom awards shall be made and shall specify the action taken with respect to each individual to whom an

award is made. At the discretion of the Board of Directors, an individual may be given an election to surrender an award in exchange for the grant of a new award.

6. OPTION GRANTS.

(a) GENERAL RULES RELATING TO OPTIONS.

(i) TERMS OF GRANT. The Board of Directors may grant options under the Plan. With respect to each option grant, the Board of Directors shall determine the number of shares subject to the option, the option price, the period of the option, the time or times at which the option may be exercised and whether the option is an Incentive Stock Option or a Non-Statutory Stock Option. At the time of the grant of an option or at any time thereafter, the Board of Directors may provide that an optionee who exercised an option with Common Stock of the Company shall automatically receive a new option to purchase additional shares equal to the number of shares surrendered and may specify the terms and conditions of such new options.

(ii) EXERCISE OF OPTIONS. Except as provided in paragraph 6(a)(iv) or as determined by the Board of Directors, no option granted under the Plan may be exercised unless at the time of such exercise the optionee is employed by or in the service of the Company or any subsidiary of the Company and shall have been so employed or provided such service continuously since the date such option was granted. Absence on leave or on account of illness or disability under rules established by the Board of Directors shall not, however, be deemed an interruption of employment or service for this purpose. Unless otherwise determined by the Board of Directors, vesting of options shall not continue during an absence on leave (including an extended illness) or on account of disability. Except as provided in paragraphs 6(a)(iv), 14 and 15, options granted under the Plan may be exercised from time to time over the period stated in each option in such amounts and at such times as shall be prescribed by the Board of Directors, provided that options shall not be exercised for fractional shares. Unless otherwise determined by the Board of Directors, if the optionee does not exercise an option in any one year with respect to the full number of shares to which the optionee is entitled in that year, the optionee's rights shall be cumulative and the optionee may purchase

those shares in any subsequent year during the term of the option. Unless otherwise determined by the Board of Directors, if an Officer exercises an option within six months of the grant of the option, the shares acquired upon exercise of the option may not be sold until six months after the date of grant of the option.

(iii) NONTRANSFERABILITY. Each Incentive Stock Option and, unless otherwise determined by the Board of Directors with respect to an option granted to a person who is neither an Officer nor a director of the Company, each other option granted under the Plan by its terms shall be nonassignable and nontransferable by the optionee, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the optionee's domicile at the time of death or, for options other than Incentive Stock Options, pursuant to a qualified domestic relations order as defined under the Code or Title I of the Employee Retirement Income Security Act.

(iv) TERMINATION OF EMPLOYMENT OR SERVICE.

(A) GENERAL RULE. Unless otherwise determined by the Board of Directors, in the event the employment or service of the optionee with the Company or a subsidiary terminates for any reason other than because of physical disability or death as provided in subparagraphs 6(a)(iv)(B) and (C), the option may be exercised at any time prior to the expiration date of the option or the expiration of 30 days after the date of such termination, whichever is the shorter period, but only if and to the extent the optionee was entitled to exercise the option at the date of such termination.

(B) TERMINATION BECAUSE OF TOTAL DISABILITY. Unless otherwise determined by the Board of Directors, in the event of the termination of employment or service because of total disability, the option may be exercised at any time prior to the expiration date of the option or the expiration of 12 months after the date of such termination, whichever is the shorter period, but only if and to the extent the optionee was entitled to exercise the option at the date of such termination. The term "total disability" means a mental or physical impairment which is expected to result in death or which has lasted or is expected to last for a continuous period of 12 months or more and which causes the optionee to be unable, in the opinion of the Company and two independent physicians, to perform his or her duties as an employee, director, officer or consultant of the Company and to be engaged in any substantial gainful activity. Total disability shall be deemed to have occurred on the first day after the Company and the two independent physicians have furnished their opinion of total disability to the Company.

(C) TERMINATION BECAUSE OF DEATH. Unless otherwise determined by the Board of Directors, in the event of the death of an optionee while employed by or providing service to the Company or a subsidiary, the option may be exercised at any time prior to the expiration date of the option or the expiration of 12 months after the date of death, whichever is the shorter period, but only if and to the extent the optionee was entitled to exercise the option at the date of death and only by the person or persons to whom such optionee's rights under the option shall pass by the optionee's will or by the laws of descent and distribution of the state or country of domicile at the time of death.

(D) AMENDMENT OF EXERCISE PERIOD APPLICABLE TO TERMINATION. The Board of Directors at the time of grant or at any time thereafter, may extend the 30-day and 12-month exercise periods any length of time not longer than the original expiration date of the option, and may increase the portion of an option that is exercisable, subject to such terms and conditions as the Board of Directors may determine.

(E) FAILURE TO EXERCISE OPTION. To the extent that the option of any deceased optionee or of any optionee whose

employment or service terminates is not exercised within the applicable period, all further rights to purchase shares pursuant to such option shall cease and terminate.

(v) PURCHASE OF SHARES. Unless the Board of Directors determines otherwise, shares may be acquired pursuant to an option granted under the Plan only upon receipt by the Company of notice in writing from the optionee of the optionee's intention to exercise, specifying the number of shares as to which the optionee desires to exercise the option and the date on which the optionee desires to complete the transaction, and if required in order to comply with the Securities Act of 1933, as amended, containing a representation that it is the optionee's present intention to acquire the shares for investment and not with a view to distribution. Unless the Board of Directors determines otherwise, on or before the date specified for completion of the purchase of shares pursuant to an option, the optionee must have paid the Company the full purchase price of such shares in cash (including, with the consent of the Board of Directors, cash that may be the proceeds of a loan from the Company) or, with the consent of the Board of Directors, in whole or in part, in Common Stock of the Company valued at fair market value, restricted stock, performance units or other contingent awards denominated in either stock or cash, promissory notes and other forms of consideration. The fair market value of Common Stock provided in payment of the purchase price shall be determined by the Board of Directors. If the Common Stock of the Company is not publicly traded on the date the option is exercised, the Board of Directors may consider any valuation methods it deems appropriate and may but is not required to, obtain one or more independent appraisals of the Company. If the Common Stock of the Company is publicly traded on the date the option is exercised, the fair market value of Common Stock provided in payment of the purchase price shall be the closing price of the Common Stock as reported in THE WALL STREET JOURNAL on the trading day preceding the date the option is exercised, or such other reported value of the Common Stock as shall be specified by the Board of Directors. No shares shall be issued until full payment for the shares has been made. With the consent of the Board of Directors, an optionee may request the Company to apply automatically the shares to be received upon the exercise of a portion of a stock option (even though stock certificates have not yet been issued) to satisfy the purchase price for additional portions of the option. Each optionee who has exercised an option shall immediately upon notification of the amount due, if any, pay to the Company in cash amounts necessary to satisfy any applicable federal, state and local tax withholding requirements. If additional withholding is or becomes required beyond any amount deposited before delivery of the certificates, the optionee shall pay such amount to the Company on demand. If the optionee fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the optionee, including salary, subject to applicable law. With the consent of the Board of Directors an optionee may satisfy this obligation, in whole or in part, by having the Company withhold from the shares to be issued upon the exercise that number of shares that would satisfy the withholding amount due or by delivering to the Company Common Stock to satisfy the withholding amount. Upon the exercise of an option, the number of shares reserved for issuance under the Plan shall be reduced by the number of shares issued upon exercise of the option.

(b) INCENTIVE STOCK OPTIONS. Incentive Stock Options shall be subject to the following additional terms and conditions:

(i) LIMITATION ON AMOUNT OF GRANTS. No employee may be granted Incentive Stock Options under the Plan if the aggregate fair market value, on the date of grant, of the Common Stock with respect to which Incentive Stock Options are exercisable for the first time by that employee during any calendar year under the Plan and under any other incentive stock option plan (within the meaning of Section 422 of the Code) of the Company or any parent or subsidiary of the Company exceeds $100,000.

(ii) LIMITATIONS ON GRANTS TO 10 PERCENT SHAREHOLDERS. An Incentive Stock Option may be granted under the Plan to an employee possessing more than 10 percent of the total combined voting power of all classes of stock of the Company or of any parent or subsidiary of the Company only if the option price is at least 110 percent of the fair market value of the Common Stock subject to the option on the date it is granted, as described in paragraph 6(b)(iv), and the option by its terms is not exercisable after the expiration of five years from the date it is granted.

(iii) DURATION OF OPTIONS. Subject to paragraphs 6(a)(ii) and 6(b)(ii), Incentive Stock Options granted under the Plan shall continue in effect for the period fixed by the Board of Directors, except that no Incentive Stock Option shall be exercisable after the expiration of 10 years from the date it is granted.

(iv) OPTION PRICE. The option price per share shall be determined by the Board of Directors at the time of grant. Except as provided in paragraph 6(b)(ii), the option price shall not be less than 100 percent of the fair market value of the Common Stock covered by the Incentive Stock Option at the date the option is granted. The fair market value shall be determined by the Board of Directors. If the Common Stock of the Company is not publicly traded on the date the option is granted, the Board of Directors may consider any valuation methods it deems appropriate and may, but is not required to, obtain one or more independent appraisals of the Company. If the Common Stock of the Company is publicly traded on the date the option is exercised, the fair market value shall be deemed to be the closing price of the Common Stock as reported in THE WALL STREET JOURNAL on the day preceding the date the option is granted, or if there has been no sale on that date, on the last preceding date on which a sale occurred, or such other value of the Common Stock as shall be specified by the Board of Directors.

(v) LIMITATION ON TIME OF GRANT. No Incentive Stock Option shall be granted on or after the tenth anniversary of the effective date of the Plan.

(vi) CONVERSION OF INCENTIVE STOCK OPTIONS. The Board of Directors may at any time without the consent of the optionee convert an Incentive Stock Option to a Non-Statutory Stock Option.

(c) NON-STATUTORY STOCK OPTIONS. Non-Statutory Stock Options shall be subject to the following terms and conditions in addition to those set forth in Section 6(a) above:

(i) OPTION PRICE. The option price for Non-Statutory Stock Options shall be determined by the Board of Directors at the time of grant and may be any amount determined by the Board of Directors.

(ii) DURATION OF OPTIONS. Non-Statutory Stock Options granted under the Plan shall continue in effect for the period fixed by the Board of Directors.

7. STOCK BONUSES. The Board of Directors may award shares under the Plan as stock bonuses. Shares awarded as a bonus shall be subject to the terms, conditions, and restrictions determined by the Board of Directors. The restrictions may include restrictions concerning transferability and forfeiture of the shares awarded, together with such other restrictions as may be determined by the Board of Directors. If shares are subject to forfeiture, all dividends or other distributions paid by the Company with respect to the shares shall be retained by the Company until the shares are no longer subject to forfeiture, at which time all accumulated amounts shall be paid to the recipient. The Board of Directors may require the recipient to sign an agreement as a condition of the award, but may not require the recipient to pay any monetary consideration other than amounts necessary to satisfy tax withholding requirements. The agreement may contain any terms, conditions, restrictions, representations and warranties required by the Board of Directors. The certificates representing the shares awarded shall bear any legends required by the Board of Directors. Unless otherwise determined by the Board of Directors, shares awarded as a stock bonus to an Officer may not be sold until six months after the date of the award. The Company may require any recipient of a stock bonus to pay to the Company in cash upon demand amounts necessary to satisfy any applicable federal, state or local tax withholding requirements. If the recipient fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the recipient, including salary or fees for services, subject to applicable law. With the consent of the Board of Directors, a recipient may deliver Common Stock to the Company to satisfy this withholding obligation. Upon the issuance of a stock bonus, the number of shares reserved for issuance under the Plan shall be reduced by the number of shares issued.

8. RESTRICTED STOCK. The Board of Directors may issue shares under the Plan for such consideration (including promissory notes and services) as

determined by the Board of Directors. Shares issued under the Plan shall be subject to the terms, conditions and restrictions determined by the Board of Directors. The restrictions may include restrictions concerning transferability, repurchase by the Company and forfeiture of the shares issued, together with such other restrictions as may be determined by the Board of Directors. If shares are subject to forfeiture or repurchase by the Company, all dividends or other distributions paid by the Company with respect to the shares shall be retained by the Company until the shares are no longer subject to forfeiture or repurchase, at which time all accumulated amounts shall be paid to the recipient. All Common Stock issued pursuant to this paragraph 8 shall be subject to a purchase agreement, which shall be executed by the Company and the prospective recipient of

the shares prior to the delivery of certificates representing such shares to the recipient. The purchase agreement may contain any terms, conditions, restrictions, representations and warranties required by the Board of Directors. The certificates representing the shares shall bear any legends required by the Board of Directors. Unless otherwise determined by the Board of Directors, shares issued under this paragraph 8 to an Officer may not be sold until six months after the shares are issued. The Company may require any purchaser of restricted stock to pay to the Company in cash upon demand amounts necessary to satisfy any applicable federal, state or local tax withholding requirements. If the purchaser fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the purchaser, including salary, subject to applicable law. With the consent of the Board of Directors, a purchaser may deliver Common Stock to the Company to satisfy this withholding obligation. Upon the issuance of restricted stock, the number of shares reserved for issuance under the Plan shall be reduced by the number of shares issued.

9. STOCK APPRECIATION RIGHTS.

(a) GRANT. Stock appreciation rights may be granted under the Plan by the Board of Directors, subject to such rules, terms, and conditions as the Board of Directors prescribes.

(b) EXERCISE.

(i) Each stock appreciation right shall entitle the holder, upon exercise, to receive from the Company in exchange therefor an amount equal in value to the excess of the fair market value on the date of exercise of one share of Common Stock of the Company over its fair market value on the date of grant (or, in the case of a stock appreciation right granted in connection with an option, the excess of the fair market value of one share of Common Stock of the Company over the option price per share under the option to which the stock appreciation right relates), multiplied by the number of shares covered by the stock appreciation right or the option, or portion thereof, that is surrendered. No stock appreciation right shall be exercisable at a time that the amount determined under this subparagraph is negative. Payment by the Company upon exercise of a stock appreciation right may be made in Common Stock valued at fair market value, in cash, or partly in Common Stock and partly in cash, all as determined by the Board of Directors.

(ii) A stock appreciation right shall be exercisable only at the time or times established by the Board of Directors. If a stock appreciation right is granted in connection with an option, the following rules shall apply: (1) the stock appreciation right shall be exercisable only to the extent and on the same conditions that the related option could be exercised; (2) upon exercise of the stock appreciation right, the option or portion thereof to which the stock appreciation right relates terminates; and (3) upon exercise of the option, the related stock appreciation right or portion thereof terminates. Unless otherwise determined by the Board of Directors, no stock appreciation right granted to an Officer or director may be exercised during the first six months following the date it is granted.

(iii) The Board of Directors may withdraw any stock appreciation right granted under the Plan at any time and may impose any conditions upon the exercise of a stock appreciation right or adopt rules and regulations from time to time affecting the rights of holders of stock

appreciation rights. Such rules and regulations may govern the right to exercise stock appreciation rights granted prior to adoption or amendment of such rules and regulations as well as stock appreciation rights granted thereafter.

(iv) For purposes of this paragraph 9, the fair market value of the Common Stock shall be determined as of the date the stock appreciation right is exercised, under the methods set forth in paragraph 6(b)(iv).

(v) No fractional shares shall be issued upon exercise of a stock appreciation right. In lieu thereof, cash may be paid in an amount equal to the value of the fraction or, if the Board of Directors shall determine, the number of shares may be rounded downward to the next whole share.

(vi) Each stock appreciation right granted in connection with an Incentive Stock Option, and unless otherwise determined by the Board of Directors with respect to a stock appreciation right granted to a person who is neither an Officer nor a director of the Company, each other stock appreciation right granted under the Plan by its terms shall be nonassignable and nontransferable by the holder, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the holder's domicile at the time of death, and each stock appreciation right by its terms shall be exercisable during the holder's lifetime only by the holder; provided, however, that a stock appreciation right not granted in connection with an Incentive Stock Option shall also be transferable pursuant to a qualified domestic relations order as defined under the Code or Title I of the Employee Retirement Income Security Act.

(vii) Each participant who has exercised a stock appreciation right shall, upon notification of the amount due, pay to the Company in cash amounts necessary to satisfy any applicable federal, state and local tax withholding requirements. If the participant fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the participant including salary, subject to applicable law. With the consent of the Board of Directors a participant may satisfy this obligation, in whole or in part, by having the Company withhold from any shares to be issued upon the exercise that number of shares that would satisfy the withholding amount due or by delivering Common Stock to the Company to satisfy the withholding amount.

(viii) Upon the exercise of a stock appreciation right for shares, the number of shares reserved for issuance under the Plan shall be reduced by the number of shares issued. Cash payments of stock appreciation rights shall not reduce the number of shares of Common Stock reserved for issuance under the Plan.

10. CASH BONUS RIGHTS.

(a) GRANT. The Board of Directors may grant cash bonus rights under the Plan in connection with (i) options granted or previously granted, (ii) stock appreciation rights granted or previously granted, (iii) stock bonuses awarded or previously awarded and (iv) shares sold or previously sold under the Plan. Cash bonus rights will be subject to rules, terms and conditions as the Board of Directors may prescribe. Unless otherwise determined by the Board of Directors with respect to a cash bonus right granted to a person who is neither an Officer nor a director of the Company, each cash bonus right granted under the Plan by its terms shall be nonassignable and nontransferable by the holder, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the holder's domicile at the time of death or pursuant to a qualified domestic relations order as defined under the Code or Title I of the Employee Retirement Income Security Act. The payment of a cash bonus shall not reduce the number of shares of Common Stock reserved for issuance under the Plan.

(b) CASH BONUS RIGHTS IN CONNECTION WITH OPTIONS. A cash bonus right granted in connection with an option will entitle an optionee to a cash bonus when the related option is exercised (or terminates in connection with the exercise of a stock appreciation right related to the option) in whole or in part. If an optionee purchases shares upon exercise of an option and does not exercise a related stock appreciation right, the amount of the bonus shall be determined by multiplying the excess of the total fair market value of the shares to be acquired upon the exercise over the total option price for the

shares by the applicable bonus percentage. If the optionee exercises a related stock appreciation right in connection with the termination of an option, the amount of the bonus shall be determined by multiplying the total fair market value of the shares and cash received pursuant to the exercise of the stock appreciation right by the applicable bonus percentage. The bonus percentage applicable to a bonus right shall be determined from time to time by the Board of Directors but shall in no event exceed 75 percent.

(c) CASH BONUS RIGHTS IN CONNECTION WITH STOCK BONUS. A cash bonus right granted in connection with a stock bonus will entitle the recipient to a cash bonus payable when the stock bonus is awarded or restrictions, if any, to which the stock is subject lapse. If bonus stock awarded is subject to restrictions and is repurchased by the Company or forfeited by the holder, the cash bonus right granted in connection with the stock bonus shall terminate and may not be exercised. The amount and timing of payment of a cash bonus shall be determined by the Board of Directors.

(d) CASH BONUS RIGHTS IN CONNECTION WITH STOCK PURCHASES. A cash bonus right granted in connection with the purchase of stock pursuant to paragraph 8 will entitle the recipient to a cash bonus when the shares are purchased or restrictions, if any, to which the stock is subject lapse. Any cash bonus right granted in connection with shares purchased pursuant to paragraph 8 shall terminate and may not be exercised in the event the shares are repurchased by the Company or forfeited by the holder pursuant to applicable restrictions. The

amount of any cash bonus to be awarded and timing of payment of a cash bonus shall be determined by the Board of Directors.

(e) TAXES. The Company shall withhold from any cash bonus paid pursuant to paragraph 10 the amount necessary to satisfy any applicable federal, state and local withholding requirements.

11. PERFORMANCE UNITS. The Board of Directors may grant performance units consisting of monetary units which may be earned in whole or in part if the Company achieves certain goals established by the Board of Directors over a designated period of time, but not in any event more than 10 years. The goals established by the Board of Directors may include earnings per share, return on shareholders' equity, return on invested capital, and such other goals as may be established by the Board of Directors. In the event that the minimum performance goal established by the Board of Directors is not achieved at the conclusion of a period, no payment shall be made to the participants. In the event the maximum corporate goal is achieved, 100 percent of the monetary value of the performance units shall be paid to or vested in the participants. Partial achievement of the maximum goal may result in a payment or vesting corresponding to the degree of achievement as determined by the Board of Directors. Payment of an award earned may be in cash or in Common Stock or in a combination of both, and may be made when earned, or vested and deferred, as the Board of Directors determines. Deferred awards shall earn interest on the terms and at a rate determined by the Board of Directors. Unless otherwise determined by the Board of Directors with respect to a performance unit granted to a person who is neither an Officer nor a director of the Company, each performance unit granted under the Plan by its terms shall be nonassignable and nontransferable by the holder, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the holder's domicile at the time of death or pursuant to a qualified domestic relations order as defined under the Code or Title I of the Employee Retirement Income Security Act. Each participant who has been awarded a performance unit shall, upon notification of the amount due, pay to the Company in cash amounts necessary to satisfy any applicable federal, state and local tax withholding requirements. If the participant fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the participant, including salary or fees for services, subject to applicable law. With the consent of the Board of Directors a participant may satisfy this obligation, in whole or in part, by having the Company withhold from any shares to be issued that number of shares that would satisfy the withholding amount due or by delivering Common Stock to the Company to satisfy the withholding amount. The payment of a performance unit in cash shall not reduce the number of shares of Common Stock reserved for issuance under the Plan. The number of shares reserved for issuance under the Plan shall be reduced by the number of shares issued upon payment of an award.

12. FOREIGN QUALIFIED GRANTS. Awards under the Plan may be granted to such officers and employees of the Company and its subsidiaries and such other persons described in paragraph 1 residing in foreign jurisdictions as the Board of Directors may determine from time to time. The Board of Directors may adopt such supplements to the Plan as may be necessary

to comply with the applicable laws of such foreign jurisdictions and to afford participants favorable treatment under such laws; provided, however, that no award shall be granted under any such supplement with terms which are more beneficial to the participants than the terms permitted by the Plan.

13. OPTION GRANTS TO NON-EMPLOYEE DIRECTORS.

(a) INITIAL GRANTS. Each person who is or becomes a Non-Employee Director after June 3, 1992 shall be automatically granted an option to purchase 100,000 shares of Common Stock on the date he or she becomes a Non-Employee Director. A "Non-Employee Director" is a director who is not an employee of the Company or any of its subsidiaries and has not been an employee of the Company or any of its subsidiaries within one year of any date as of which a determination of eligibility is made.

(b) EXERCISE PRICE. The exercise price of an option granted pursuant to this paragraph 13 shall be equal to the fair market value of the Common Stock as determined in accordance with the procedure set forth in paragraph 6(b)(iv).

(c) TERM OF OPTION. The term of each option granted pursuant to this paragraph 13 shall be 10 years from the date of grant.

(d) EXERCISABILITY. Until an option expires or is terminated and except as provided in paragraph 13(f), 14 and 15, an option granted under this paragraph 13 shall be exercisable according to the following schedule:

Period of Non-Employee Director's Continuous Service as a Director of the Company from the Date the Option is Granted	Portion of Total Option Which is Exercisable
Less than 12 months	0%
After 12 months	25% plus 25% for each 12 months of additional continuous service until fully vested.

For purposes of this paragraph 13(e), a complete month shall be deemed to be the period which starts on the day of grant and ends on the same day of the following calendar month, so that each successive "complete month" ends on the same day of each successive calendar month (or, in respect of any calendar month which does not include such a day, that "complete month" shall end on the first day of the next following calendar month).

(e) TERMINATION AS A DIRECTOR. If an optionee ceases to be a director of the Company for any reason, including death, the option may be exercised at any time prior to the expiration date of the option or the expiration of 30 days (or 12 months in the event of death) after the last day the optionee served as a director, whichever is the sooner period, but only if and to the extent the optionee was entitled to exercise the option as of the last day the optionee served as a director.

(f) NONTRANSFERABILITY. Each option by its terms shall be nonassignable and nontransferable by the optionee, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the optionee's domicile at the time of death or pursuant to a qualified domestic relations order as defined under the Code or Title I of the Employee Retirement Income Security Act.

(g) EXERCISE OF OPTIONS. Options may be exercised upon payment of cash or shares of Common Stock of the Company in accordance with paragraph 6(a)(v). Unless otherwise determined by the Board of Directors, if an option is exercised within six months of the date of grant, the shares acquired upon such exercise may not be sold until six months after the date of grant.

14. CHANGES IN CAPITAL STRUCTURE. If the outstanding Common Stock of the Company is hereafter increased or decreased or changed into or exchanged for a different number or kind of shares or other securities of the Company or of another corporation by reason of any reorganization, merger, consolidation, plan of exchange, recapitalization, reclassification, stock split-up, combination of shares or dividend payable in shares, appropriate adjustment shall be made by the Board of Directors in the number and kind of shares available for awards under the Plan. In addition, except with respect to transactions referred to in paragraph 15, the Board of Directors shall make appropriate adjustment in the number and kind of shares as to which outstanding options and stock appreciation rights, or portions thereof then unexercised, shall be exercisable, so that the optionee's proportionate interest before and after the occurrence of the event is maintained. Notwithstanding the foregoing, the Board of Directors shall have no obligation to effect any adjustment that would or might result in the issuance of fractional shares, and any fractional shares resulting from any adjustment may be disregarded or provided for in any manner determined by the Board of Directors. Any such adjustments made by the Board of Directors shall be conclusive. If the shareholders of the Company receive capital stock of another corporation ("Exchange Stock") in exchange for their shares of Common Stock in any transaction involving a merger, consolidation or plan of exchange, all options granted hereunder shall be converted into options to purchase shares of Exchange Stock unless the Company and the corporation issuing the Exchange Stock, in their sole discretion, determine that any or all such options granted hereunder shall not be converted into options to purchase shares of Exchange Stock but instead shall terminate in accordance with the provisions of the last sentence of this paragraph 14. The amount and price of converted options shall be determined by adjusting the amount and price of the options granted hereunder in the same proportion as used for determining the number of shares of Exchange Stock the holders of the Common Stock receive in such merger. In the event of dissolution of the Company or a merger, consolidation

or plan of exchange affecting the Company to which paragraph 15 does not apply, in lieu of providing for options and stock appreciation rights as provided above in this paragraph 14, the Board of Directors may, in its sole discretion, provide a 30-day period prior to such event during which optionees shall have the right to exercise options and stock appreciation rights in whole or in part without any limitation on exercisability and upon the expiration of which 30-day period all unexercised options and stock appreciation rights shall immediately terminate.

15. ACCELERATION IN CERTAIN EVENTS. Notwithstanding any other provisions of the Plan, all options and stock appreciation rights outstanding under the Plan shall immediately become exercisable in full for the remainder of their terms at any time when any one of the following events has taken place:

(a) The shareholders of the Company approve one of the following ("Approved Transactions"):

(i) Any consolidation, merger or plan of exchange involving the Company ("Merger") pursuant to which Common Stock would be converted into cash; or

(ii) Any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company or the adoption of any plan or proposal for the liquidation or dissolution of the Company; or

(b) A tender or exchange offer, other than one made by the Company, is made for Common Stock (or securities convertible into Common Stock) and such offer results in a portion of those securities being purchased and the offeror after the consummation of the offer is the beneficial owner (as determined pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), directly or indirectly, of at least 20 percent of the outstanding Common Stock (an "Offer"); or

(c) The Company receives a report on Schedule 13D of the Exchange Act reporting the beneficial ownership by any person of 20 percent or more of the Company's outstanding Common Stock, except that if such receipt shall occur during a tender offer or exchange offer by any person other than the Company or a wholly-owned subsidiary of the Company, Special Acceleration shall not take place until the conclusion of such offer; or

(d) During any period of 12 months or less, individuals who at the beginning of such period constituted a majority of the Board of Directors cease for any reason to constitute a majority thereof unless the nomination or election of such new directors was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such period.

All options and stock appreciation rights that are accelerated pursuant to this paragraph 15 shall terminate upon the dissolution of the Company or upon the consummation of any Merger pursuant to which Common Stock would be converted to cash. The terms used

in this paragraph 15 and not defined elsewhere in the Plan shall have the same meanings as such terms have in the Exchange Act and the rules and regulations adopted thereunder.

16. CORPORATE MERGERS, ACQUISITIONS, ETC. The Board of Directors may also grant options, stock appreciation rights, performance units, stock bonuses and cash bonuses and issue restricted stock under the Plan having terms, conditions and provisions that vary from those specified in this Plan provided that any such awards are granted in substitution for, or in connection with the assumption of, existing options, stock appreciation rights, stock bonuses, cash bonuses, restricted stock and performance units granted, awarded or issued by another corporation and assumed or otherwise agreed to be provided for by the Company pursuant to or by reason of a transaction involving a corporate merger, consolidation, acquisition of property or stock, separation, reorganization or liquidation to which the Company or a subsidiary is a party.

17. AMENDMENT OF PLAN. The Board of Directors may at any time, and from time to time, modify or amend the Plan in such respects as it shall deem advisable because of changes in the law while the Plan is in effect or for any other reason. Except as provided in paragraphs 6(a)(iv), 9, 14 and 15, however, no change in an award already granted shall be made without the written consent of the holder of such award.

18. APPROVALS. The obligations of the Company under the Plan are subject to the approval of state and federal authorities or agencies with jurisdiction in the matter. The Company will use its best efforts to take steps required by state or federal law or applicable regulations, including rules and regulations of the Securities and Exchange Commission and any stock exchange on which the Company's shares may then be listed, in connection with the grants under the Plan. The foregoing notwithstanding, the Company shall not be obligated to issue or deliver Common Stock under the Plan if such issuance or delivery would violate applicable state or federal securities laws.

19. EMPLOYMENT AND SERVICE RIGHTS. Nothing in the Plan or any award pursuant to the Plan shall (i) confer upon any employee any right to be continued in the employment of the Company or any subsidiary or interfere in any way with the right of the Company or any subsidiary by whom such employee is employed to terminate such employee's employment at any time, for any reason, with or without cause, or to decrease such employee's compensation or benefits, or (ii) confer upon any person engaged by the Company any right to be retained or employed by the Company or to the continuation, extension, renewal, or modification of any compensation, contract, or arrangement with or by the Company.

20. RIGHTS AS A SHAREHOLDER. The recipient of any award under the Plan shall have no rights as a shareholder with respect to any Common Stock until the date of issue to the recipient of a stock certificate for such shares. Except as otherwise expressly provided in the Plan, no adjustment shall be made for dividends or other rights for which the record date occurs prior to the date such stock certificate is issued.

2000 AMENDMENT TO TECHNOLOGY TRANSFER AGREEMENT BETWEEN ANTI-GENE DEVELOPMENT GROUP AND AVI BIOPHARMA, INC. (FORMERLY ANTIVIRALS INC.)

This Amendment to the Technology Transfer Agreement dated February 9, 1992 but executed on February 9, 1993 (the TT Agreement or the 1993 TT Agreement) and the Amendment to that Agreement dated January 20, 1997 (the 1997 Amendment) between ANTI-GENE DEVELOPMENT GROUP and AVI BioPharma, Inc. (2000 Amendment) is by and between ANTI-GENE DEVELOPMENT GROUP (AGD), an Oregon limited partnership, and AVI BioPharma, Inc. (AVI), an Oregon corporation.

RECITALS

A. As per the terms of the 1993 TT Agreement and the 1997 Amendment thereto, hereby incorporated by reference herein, AGD (Seller) is due Purchase Price payments from AVI (Buyer) in the amount of 4.051 percent of Sales of Therapeutic Products after the first two hundred million dollars in total cumulative worldwide Sales by Buyer and Buyer Affiliates collectively and in the amount of 2.0 percent of Sales of Diagnostic Products, with no sales of Diagnostic Products being exempt from royalties.

B. AVI wishes to have Purchase Price payments reduced on Sales of Therapeutic Products.

C. AGD wishes to convert its non-exclusive license for Diagnostic Products from AVI to a royalty-free exclusive license.

D. AGD wishes to convert its royalty-bearing license for small-scale products to a royalty-free license.

AGREEMENT TO AMEND

In consideration of the above and as provided in Section 14.7 of the TT Agreement, AGD and AVI agree to amend the TT Agreement and the 1997 Amendment thereto as set forth below.

1. TT AGREEMENT TERMS. All capitalized terms not defined in this 2000 Amendment shall have the meanings assigned to such terms in the TT Agreement or its Exhibits and in the 1997 Amendment thereto.

2. TT AGREEMENT DEFINITIONS.

2.1 BUYER AFFILIATE. Section 1.1 of the TT Agreement is hereby amended to read in entirety as follows:

> "Buyer Affiliate" shall mean Buyer's Licensees and any other entity that controls, is controlled by, or is under common control with Buyer or Buyer's Licensees, except that Seller and any direct licensee of Seller shall not be deemed to be a Buyer Affiliate.

2.2 NEW DEFINITIONS. Section 1 of the TT Agreement is hereby amended to include the following definitions:

> 1.20 "Therapeutic Product" shall mean a Products, as defined in the TT Agreement, which is approved for use in, or is used in a human or other animal or in blood or blood derived products to achieve a therapeutic or prophylactic effect.
>
> "Therapeutic Product" shall also mean a Product, as defined in the TT Agreement, added to or contained in a culture medium which is directly inoculated with a biological specimen immediately extracted from a patient (human or animal) by a health care worker, where the Product is used solely to determine if said Product affects the growth or viability of one or more microorganisms or cells which may be present in said biological specimen.
>
> "Therapeutic Product" shall also mean a Product, as defined in the TT Agreement, which is injected into a patient (human or other animal) and then extracted from said patient and the
>
> extract analyzed to determine if, and the extent to which, said

Product is bound to a complementary genetic sequence originating within said patient.

1.21 "Diagnostic Product" shall mean a Product, as defined in the TT Agreement, which is approved for, or is used for detecting and/or quantitating in a biological specimen outside any human or other animal body one or more selected nucleic acid sequences.

"Diagnostic Product" shall also mean any product which would infringe one or more valid claims of any patent issuing from U.S. Patent Application number 08/969,813 titled: "Reagent and Method for Isolation and Detection of Selected Nucleic Acid", as well as all continuations, continuations-in-part, divisions, reissues, patents of addition, renewals, and any foreign counterparts of said 08/969,813 patent application.

1.22 "Research Product" shall mean a Product, as defined in the TT Agreement, which is not classed as a Therapeutic Product or Diagnostic Product.

1.23 "Small-Scale Product" shall mean a Product and AVI Improvements relating thereto --including adducts for enhancing delivery and cell entry, as defined in the TT Agreement, which meets all of the following requirements: (i) is produced in a lot size of less than 1 gram; (ii) is sold by any entity for research purposes only.

1.24 The terms "Seller's Affiliate" and "AGD Affiliate" are synonymous, and are understood and intended to mean, any entity that controls, is controlled by, or is under common control with AGD.

3. TT AGREEMENT PURCHASE PRICE. Section 4.2(b) of the TT Agreement is hereby amended to read in its entirety as follows:

(b) The purchase Price set forth in Section 4.2(a) shall be with respect to Therapeutic Products a flat 3.00 percent.

4. RIGHTS OF FIRST REFUSAL. Section 4.9 of the 1997 Amendment is amended to read in its entirety as follows:

4.9 RIGHT OF FIRST REFUSAL. Buyer shall have the right of first refusal to purchase a controlling interest or any interest in any AGD Affiliate upon any change or proposed change in ownership in such entity that would result in James E. Summerton losing control over such entity ("Triggering Event"). Transfers of interests by James E. Summerton to Summerton's children, James P., Jean and/or Daniel Summerton, shall not be considered a Triggering Event, and shall not give rise to Buyer's right of first refusal hereunder, but transfers by such children transferees to parties other than James E. Summerton would constitute a triggering Event. Such rights of first refusal shall be exercised as follows: James E. Summerton or his children transferees (here after "Summerton") shall give written notice (the "Notice") of Summerton's desire to sell interests prior to sale, and the parties shall seek to determine the interest price as quickly as reasonably possible after such Notice. The price of the interests shall be (i) the price offered by a prospective third party buyer in good faith and at arm's length; or (ii) if there is no prospective third party buyer or no terms have been offered by a third party buyer, the price as determined by a neutral third party appraiser acceptable to both the AGD Affiliate and Buyer; or (iii) if a price has not been determined pursuant to the preceding subsections (i) or (ii), or the parties otherwise agree, a price mutually agreeable to both Buyer and the AGD Affiliate. If Buyer elects not to acquire the interests specified in the Notice, Summerton may sell such interests within the 90 day period following the parties' determination of the interest price, provided the sale of such interests shall only occur at no less than the interest price as determined according to this paragraph. Once an AGD affiliate has obtained the SS license and/or the DPI license from AGD, Summerton's loss of control of AGD or AGD affiliate will not terminate this license.

5. REPORTS. Section 4.3 of the TT Agreement is hereby amended to read in its entirety as follows:

Within sixty (60) days after the end of each calendar quarter, for so long as Products are covered by unexpired Patents, Buyer shalt provide Seller with a written report setting forth the total amount of each Product sold by Buyer and Buyer Affiliates during the quarter, to whom the Products were sold, the gross invoice amount for each Sale, and the amount of any returns. At the time the report is made, Buyer shall pay Seller any amounts payable pursuant to this Section 3.

6. RECORDS. Section 4.4 of the TT Agreement is hereby amended to read in its entirety as follows:

Buyer shall maintain records concerning Sales and Products sufficient to enable Seller to verify the amounts payable under this Agreement. Seller shall have the right, through an independent auditor, to examine such records that concern Sales of Products once in any given year. Seller shall bear all expenses associated with such audits.

7. COMMENCEMENT OF PAYMENT OBLIGATIONS. Section 4.6 of the TT Agreement is hereby amended to read in its entirety as follows:

The first two hundred million dollars ($200,000,000) in total cumulative worldwide Sales of Therapeutic Products by Buyer and Buyer Affiliates, collectively, are exempt from Purchase Price payments.

8. NEW SCHEDULES. Section 9.1 of the TT Agreement is hereby amended to read in its entirety as follows:

Buyer and Seller shall execute an amended License and Option Agreement shown in Schedule 9.1. In addition, the parties hereby enter into an amended License for Small-Scale Products, attached hereto as schedule 9.1.1 and an amended License for Diagnostic Products and Improvements, attached hereto as Schedule 9.1.2.

9. SCHEDULE 9.1 DEFINITIONS. Schedule 9.1, Section 1.3 of the TT Agreement is hereby amended to read in its entirety as follows:

"AGD Improvements" shall mean improvements developed by AGD after the effective date of this Agreement but before January 1, 1998, and which AGD has the right to sublicense to AVI.

10. SCHEDULE 9.1 AVI IMPROVEMENTS. Schedule 9.1, section 1.6 of the TT Agreement is hereby amended to read in its entirety as follows:

"AVI Improvements" shall mean Improvements developed by AVI after the effective date of this Agreement but before January 1, 1998, and which AVI has the right to sublicense to AGD.

11. SCHEDULE 9.1 AGD IMPROVEMENTS. Schedule 9.1 of the original TT Agreement is hereby amended to include a new Section 2.4 which reads in its entirety as follows:

Improvements to the Technology made by AGD and its licensees under the Research and Development License to AGD will be defined as "AGD Improvements" which are to be made available to AVI under the terms of Section 5 of this Schedule 9.1 of the TT Agreement.

12. SCHEDULE 9.1 CROSS LICENSES. Section 5 of Schedule 9.1 of the original TT Agreement is amended as follows:

12.1 CHANGE IN TITLE. The title of Section 5 of Schedule 9.1 is hereby amended to read in its entirety as follows:

5. LICENSE TO AVI AND CROSS LICENSES OF IMPROVEMENTS.

12.2 CHANGE IN NUMBERING OF SECTION 5.4. Section 5.4 of Schedule 9.1, relating to the confidentiality of AGD improvements, is hereby renumbered 5.5 and is otherwise left intact.

12.3 NEW SECTION 5.4. A new Section 5.4 is hereby added to Schedule 9.1, which reads in its entirety as follows:

5.4 The parties grant each other the following cross-licenses. AGD

agrees to grant AVI a royalty-free non-exclusive license to make, use, sell, and sublicense any improvements made by AGD before January 1, 2000 relating to preparation of Morpholino subunits and/or assembly of said subunits into Morpholino polymers. AVI agrees to grant to AGD a royalty-free non-exclusive license to make, use, sell, and sublicense any improvements made by AVI before January 1, 2000 relating to preparation of Morpholino subunits and/or assembly of said subunits into Morpholino polymers.

IN WITNESS WHEREOF, the parties hereby execute this 2000 Amendment to the Technology Transfer Agreement and the 1997 Amendment thereto; effective as of the later of the dates of signature by the representatives of AVI and AGD below.

AVI BioPharma, Inc.

By: /s/ Alan P. Timmins

Alan P. Timmins
Chief Operating Officer
Chief Financial Officer

Date:

ANTI-GENE DEVELOPMENT GROUP

By: /s/ James E. Summerton

James E. Summerton, Ph.D.
Sole General Partner

Date: 9 March 2000

SCHEDULE 9.1.1

2000 AMENDMENT TO LICENSE FOR SMALL-SCALE PRODUCTS

1. SMALL-SCALE PRODUCTS LICENSE TO AGD

AVI hereby grants to AGD a license to Small-Scale Products (SS Products), with the right to sublicense, to make, have made, use, and sell SS Products, and to make, have made, and use subunits and other components in amounts not to exceed that required for assembly and use of SS Products. This license (the "SS Product license") is to be exclusive with respect to, and only with respect to selling SS Products. AGD and AGD Affiliates agree to label all SS Products with the phrase "Not for use in humans."

2. ROYALTY

This SS Products License shall be royalty free subsequent to December 31, 1999.

3. INFORMATION FOR MAKING AND USING SS PRODUCTS

Unless requested earlier by AGD, in December of 1997 AVI will convey to AGD written "Information for Making and Using SS Products." This Information for making and Using SS Products shall comprise the best ways known to AVI to make and use SS Products as of the date of conveyance of said Information for Making and Using SS Products. No other rights to transfer information concerning any other AVI Improvements are implied or granted by this SS Products License. If AGD shares information on AVI Improvements other than "Information for Making SS Products," with a sublicensee for SS Products, except where expressly allowed by a separate AVI license to AGD, that sublicensee shall also be considered to be a Research and Development licensee and any and all Improvements to the Technology made by that sublicensee will be defined as AGD Improvements which are to be made available to AVI under the terms of Section 5 of Schedule 9.1 of the TT Agreement.

4. CONFIDENTIALITY OF INFORMATION

AGD may not disclose the Technology or any AVI Improvements described in the Information for Making and Using SS Products that are not in the public domain unless: (a) the recipient has entered into a written agreement acceptable to AVI under which the recipient agrees to restrictions on disclosure, use and transfer of the Technology and AVI Improvements, and (b) AVI has consented in writing to the disclosure, use, and transfer, which consent shall not be unreasonably withheld.

5. EXEMPTION

AVI's provision of Small-Scale Products to a for-profit entity as part of a contract which includes testing and assessment of Products by said for-profit entity, where said contract is for an amount not less than $100,000, shall not be construed as infringing the "exclusive with respect to selling SS Products" clause of this SS Products license to AGD. It is understood that AVI is free to provide SS Products to any of its collaborators at no charge (including, without limitation, arrangements such as the 1995 option arrangements with Abbott Laboratories). Further, it is understood that AVI may sell SS Products to a given collaborator if those sales are part of a contract with a value of not less than $100,000 for the purchase of SS Products.

6. EFFECTIVE DATE

The effective date of this SS Products License shall be when both AVI and AGD have signed the Amendment to which this is Schedule 9.1.1, except that the exclusivity of the SS Product License granted to AGD under Section 1 above will only become effective at the time AGD or an AGD Affiliate demonstrates a capability to prepare at least 10 different 20-mer Morpholino polymers in a 2 week period and two such representative Morpholino polymers exhibit on a per mass basis in a cell-free translation system at least 60% of the efficacies of corresponding highly-purified Morpholino polymers prepared by AVI.

7. TERMINATION OF PAYMENT OBLIGATIONS

AGD's obligation to make royalty payments to AVI for any given SS Product shall end effective December 31, 1999.

8. TERMINATION OF SS PRODUCT LICENSE

Either party may terminate this SS Products License for any material breach by the other party that remains uncured 90 days after that party receives notice of the breach from the non-breaching party.

9. OBLIGATION TO EXPLOIT

This section 9, "Obligation to Exploit", is deleted.

10. DISCLAIMER OF WARRANTY

AVI makes no warranty whatsoever, express or implied, including without limitation a warranty of merchantability of fitness, with respect to Technology, AVI Improvements, or SS Products licensed to AGD pursuant to this Amendment, which SS Products AGD takes "as is".

11. CHOICE OF LAW

The construction and performance of this SS Products License will be governed by the laws of the state of Oregon (except for conflicts of law provisions thereof).

12. EXPENSES

Each party to this SS Products License shall pay its own expenses incident to the negotiation, execution, delivery and performance of this SS Products License.

13. NOTICES

Any notice or other communication required or permitted under this

Agreement shall be in writing and shall be sent by certified mail, return receipt requested, or by hand delivery:

If to AVI, to the following address:

AVI BioPharma, Inc.
One SW Columbia, Suite 1105
Portland, Oregon 97258
Attention: Denis Burger

With a copy to:

AVI BioPharma, Inc.
One SW Columbia, Suite 1105
Portland, Oregon 97258
Attention: Alan P. Timmins

If to AGD, to the following address:

ANTI-GENE DEVELOPMENT GROUP
P.O. Box 2210
Corvallis, Oregon 97339
Attention: James E. Summerton

With a copy to:

James E. Summerton
General Partner of AGDG

3107 NW Norwood Place
Corvallis, Oregon 97330

Unless otherwise provided in this SS Products License, all notices and communications shall be deemed to have been duly given or made (i) when delivered by hand, (ii) five business days after being deposited in the U.S. mail, postage prepaid, as registered or certified mail, return receipt requested. The address to which notices or other communications shall be directed may be changed from time to time by any party by giving written notice to the other parties of the substituted address.

14. ATTORNEY FEES

If a suit or action is filed by either party to enforce the provisions of this SS Products License, or otherwise with respect to the subject matter of this SS Products License, the prevailing party shall be entitled to recover reasonable attorneys' fees and expenses (including, but not limited to those fees and expenses permitted or defined by statute) as fixed by the appellate court, and if any appeal is taken from the decision of the trial court, as affixed by the appellate court.

15. SUCCESSORS AND ASSIGNS

This SS Products License will be binding upon and inure to the benefit of each of the parties and its successors and assigns; provided that no party may assign its rights under this SS Products License agreement without the consent of the other party, which consent shall not unreasonably be withheld.

16. AMENDMENT

No supplement, modification or amendment of, or waiver with respect to, this SS Products License shall be binding unless executed in writing. This SS Products License agreement may be modified, amended, or terminated upon the written agreement of both parties.

17. CONSENTS

Any consent required by this SS Products License shall be effective only if given in a writing executed by the party giving the consent.

18. HEADINGS

The headings in this SS Products License are solely for convenience of reference and shall not limit or otherwise affect the meaning of this SS Products License.

19. SEVERABILITY

If any part of this SS Products License is found invalid or unenforceable, it shall be enforced to the maximum extent by law, and other parts of this SS Products License will remain in force.

20. ENTIRE LICENSE

This Amended SS Products License, whose terms comprise Schedule 9.1.1 of the 2000 Amendment to the 1993 TT Agreement and 1997 Amendment thereto between AGD and AVI, constitutes the entire license pertaining to SS Products and supercedes all prior agreements and understandings of the parties in connection therewith. No covenant, representation or condition not expressed in this Amended SS Products License will affect or be effective to interpret, change or restrict, the express provisions of this Amended SS Products License.

SCHEDULE 9.1.2

2000 AMENDMENT TO LICENSE FOR DIAGNOSTIC PRODUCTS AND IMPROVEMENTS

1. AVI GRANT OF DIAGNOSTIC PRODUCTS AND IMPROVEMENTS LICENSE TO AGD

AVI grant to AGD a license (the "DPI license"), with right to sublicense to the Diagnostic Products and AVI Improvements relating thereto, as defined in the 1993 TT Agreement and the 1997 Amendment and the 2000 Amendment thereto. The DPI license is to make, have made, use, and sell Diagnostic Products and AVI Improvements relating thereto (DPI) including particularly U.S. Patent Application 08/969,813, and to make, have made, and use subunits and other components of DPI in amounts not to exceed that required for assembly and use of DPI. AVI also grants to AGD the right to develop and patent "undeveloped AVI ideas relating to diagnostics" (Undeveloped Ideas), where Undeveloped Ideas are defined as AVI ideas relating to diagnostics which have not been reduced to practice as of the effective date of this DPI license. This DPI license is to be exclusive with respect to, and only with respect to selling DPI Products.

2. LICENSE FEE

AGD or its affiliate shall pay AVI a one-time license fee in the amount of $1,000,000 by or before March 31, 2000. There shall be no additional fees or royalties.

3. INFORMATION FOR MAKING AND USING DIAGNOSTIC PRODUCTS AND AVI IMPROVEMENTS RELATING THERETO (DPI INFORMATION)

Upon request by AGD, but not later than December 1997, AVI will convey to AGD written DPI Information. This DPI Information shall comprise only the specific information described in Exhibit A. No other rights to transfer information concerning any other AVI Improvements are implied or granted by this DPI license. If AGD shares information on AVI Improvements other than "DPI Information," with a sublicensee for DPI, except where expressly allowed by a separate AVI license to AGD, that sublicensee shall also be considered to be a Research and Development licensee and any and all Improvements to the Technology made by that sublicensee will be defined as AGD Improvements which have to be made available to AVI under the terms of Section 5 of Schedule 9.1 of the TT Agreement.

4. EXEMPTION

AVI may make and use, but not sell DPI Products. AVI's provision of DPI Products to another organization will not constitute a sale when said DPI Product is used solely in conjunction with and support of preclinical testing and clinical trials of AVI's Therapeutic Products, as defined in the TT Agreement and the 1997 Amendment and 2000 Amendment thereto.

5. CONFIDENTIALITY OF DPI INFORMATION

AGD may not disclose the Technology or any AVI Improvements described in the DPI Information that are not in the public domain except where expressly allowed by a separate AVI license to AGD unless: (a) the recipient has entered into a written agreement acceptable to AVI under which the recipient agrees to restrictions on disclosure, use and transfer to the Technology and AVI Improvements, and (b) AVI has consented in writing to the disclosure,

use, and transfer, which consent shall not be unreasonably withheld.

6. EFFECTIVE DATE

The effective date of this DPI license shall be the later of: the date when both AVI and AGD have signed the 2000 Amendment to which this is Schedule 9.1.2, or the date on which AGD or its affiliate pays the license fee set forth in Section 2 of Schedule 9.1.2.

7. TERMINATION OF PAYMENT OBLIGATIONS

AGD's obligation to make royalty payments to AVI for any given DPI shall end upon payment of the license fee set forth in Section 2 of the Schedule 9.1.2.

8. TERMINATION OF DPI LICENSE

Either party may terminate this DPI License for any material breach by the other that remains uncured 90 days after that party receives notice of the breach from the non-breaching party.

9. DISCLAIMER OF WARRANTY

AVI makes no warranty whatsoever, express or implied, including without limitation a warranty of merchantability or fitness, with respect to Technology, AVI Improvements, or DPI licensed to AGD pursuant to this Amendment, which AVI Improvements or DPI AGD takes "as is".

10. CHOICE OF LAW

The construction and performance of this DPI license will be governed by the laws of the state of Oregon (except for conflicts of law provisions thereof).

11. EXPENSES

Each party to this DPI license shall pay its own expenses incident to the negotiation, execution, delivery and performance of this DPI license.

12. NOTICES

Any notice or other communication required or permitted under this Agreement shall be in writing and shalt be sent by certified mail, return receipt requested, or by hand delivery:

If to AVI, to the following address:

AVI BioPharma, Inc.
One SW Columbia, Suite 1105
Portland, Oregon 97258
Attention: Denis Burger

With a copy to:

AVI BioPharma, Inc.
One SW Columbia, Suite 1105
Portland, Oregon 97258
Attention: Alan P. Timmins

If to AGD, to the following address:

ANTI-GENE DEVELOPMENT GROUP
P.O. Box 2210
Corvallis, Oregon 97339
Attention: James E. Summerton

With a copy to:

James E. Summerton
General Partner of AGDG
3107 NW Norwood Place
Corvallis, Oregon 97330

Unless otherwise provided in this DPI license, all notices and communications shall be deemed to have been duly given or made (i) when delivered by hand, (ii) five business days after being deposited in the U.S. mail,

postage prepaid, as registered or certified mail, return receipt requested. The address to which notices or other communications shall be directed may be changed from time to time by any party by giving written notice to the other parties of the substituted address.

13. ATTORNEY FEES

If a suit or action is filed by either party to enforce the provisions of this DPI license, or otherwise with respect to the subject matter of this DPI license, the prevailing party shall be entitled to recover reasonable attorneys' fees and expenses (including, but not limited to those fees and expenses permitted or defined by statute) as fixed by the trial court, and if any appeal is taken from the decision of the trial court, as affixed by the appellate court.

14. SUCCESSORS & ASSIGNS

This DPI license will be binding upon and inure to the benefit of each of the parties and its successors and assigns; provided that no party may assign its rights under this license agreement without the consent of the other party, which consent shall not unreasonably be withheld.

15. AMENDMENT

No supplement, modification or amendment of, or waiver with respect to, this DPI license shall be binding unless executed in writing. This DPI license may be modified, amended, or terminated upon the written agreement of both parties.

16. CONSENTS

Any consent required by this DPI license shall be effective only if given in a writing executed by the party giving the consent.

17. HEADINGS

The headings in this DPI license are solely for convenience of reference and shall not limit or otherwise affect the meaning of this DPI license.

18. SEVERABILITY

If any part of this DPI license if found invalid or unenforceable, it shall be enforced to the maximum extent permitted by law, and other parts of this DPI license will remain in force.

19. ENTIRE LICENSE

This amended DPI license, whose terms comprise Schedule 9.1.2 of the 2000 Amendment to the 1997 Amendment and the 1993 TT Agreement between AGD and AVI, constitutes the entire license pertaining to DPI and supercedes all prior agreements and understandings of the parties in connection therewith. No covenant, representation or condition not expressed in this amended DPI license will affect or be effective to interpret, change or restrict, the express provisions of this amended DPI license.

EXHIBIT A

DPI Information

Below is a listing of specific notebooks which comprise the agreed upon DPI Information. This notebook information constitutes the entire DPI Information.

Notebook Designation	Notebook Title	Dates of Entries
J. Summerton Notebook	Diagnostics 1	Jan. 20, 1993 - May 1, 1993

J. Summerton Notebook	Diagnostics 2	May 1, 1983 - July 16, 1994
AVI 9	Diagnostics 3	July 17, 1994 - Dec. 23, 1994
AVI 10	Diagnostics 4	Dec. 24, 1994 - Jan. 27, 1995
AVI 29	Diagnostics 5	Jan. 30, 1985 - Mar. 4, 1995
AVI 32	Diagnostics 6	Mar. 4, 1995 - Apr. 4, 1995
AVI 33	Diagnostics 7	Apr. 4, 1995 - Apr. 26, 1995
AVI 38	Diagnostics 8	Apr. 26, 1995 - Oct. 31, 1995
AVI 57	Diagnostics 9	Oct. 31, 1995 - Dec. 24, 1995

AVI BioPharma, Inc. (AVI) hereby provides its consent to ANTI-GENE DEVELOPMENT GROUP (AGD) to allow transfer to and use by sublicensees of the AGD of "DPI Information", where "DPI Information" is defined in the 2000 Amendment to the 1997 Amendment and the 1993 Technology Transfer Agreement between AGD and AVI. In return for this AVI consent to allow transfer to and use of said information by a sublicensee of AGD, said sublicensee agrees not to disclose to any other entity any of said information, excepting that which is already in the public domain, and to abide by all terms necessary for its licensor, AGD, to fulfill AGD's license obligations to AVI under the terms in Schedules 9.1.1 and 9.1.2 of the 2000 Amendment and the 1997 Amendment to the 1993 Technology Transfer Agreement between AGD and AVI.

By: /s/ Alan P. Timmins

Alan P. Timmins
Chief Operating Officer
Chief Financial Officer

Date:

By: /s/ James Summerton

James E. Summerton, Ph.D.
Sole General Partner
ANTI-GENE DEVELOPMENT GROUP

Date: 9 March 2000

Exhibit 23.0

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the use of our report dated January 28, 2000 of AVI BioPharma, Inc. (and to all references to our Firm) included or made part of this registration statement.

ARTHUR ANDERSEN LLP

Portland, Oregon
June 16, 2000