AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON MAY 22, 1997

REGISTRATION NO. 333-20511

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SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

> AMENDMENT NO. 4 TO FORM SB-2

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

> ON FORM S-4

ANTIVIRALS INC. (Name of small business issuer as specified in its charter)

OREGON 2834 93-0797222 (State or other jurisdiction (Primary Standard Industrial (IRS Employer of Classification Code Number) Identification incorporation or organization) Number)

> ONE SW COLUMBIA, SUITE 1105 PORTLAND, OREGON 97201 (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 ANTIVIRALS INC. ONE S.W. COLUMBIA, SUITE 1105 PORTLAND, OREGON 97258 (503) 227-0554

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ANTI-GENE DEVELOPMENT GROUP (Name of small business issuer as specified in its charter)

OREGON 2834 93-0797108 (State or other jurisdiction (Primary Standard Industrial (IRS Employer of Classification Code Number) Identification incorporation or organization) Number) 3107 NW NORWOOD PLACE CORVALLIS, OREGON 97330 (541) 753-3133

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

JAMES E. SUMMERTON, PH.D. GENERAL PARTNER ANTI-GENE DEVELOPMENT GROUP 3107 NW NORWOOD PLACE CORVALLIS, OREGON 97330 (541) 753-3133

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COPIES TO: JACK W. SCHIFFERDECKER, JR., ESQ. BYRON W. MILSTEAD, ESQ. ATER WYNNE HEWITT DODSON & SKERRITT LLP 222 SW COLUMBIA, SUITE 1800 PORTLAND, OREGON 97201 TELEPHONE: (503) 226-1191

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

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If any of the securities being registered on this Form are to be offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. / /

# CALCULATION OF REGISTRATION FEE

		PROPOSED	PROPOSED MAXIMUM	
TITLE OF EACH CLASS OF	AMOUNT TO BE	MAXIMUM OFFERING	AGGREGATE	AMOUNT OF
SECURITIES TO BE REGISTERED	REGISTERED	PRICE PER SHARE	OFFERING PRICE	REGISTRATION FEE
Common Stock(1)	667,436	(2)	\$ 3,121,965	\$ 946.05
Common Stock(3)	625,537	(4)	2,852,449	864.38
Common Stock(5)	3,569,030	(6)	21,414,180	6,489.15
Promissory Notes	3,750,965	\$1.00	3,750,965	1,136.66
Limited Partnership Units(7)	568.67	(8)	2,852,449	864.38
Total			\$33,992,008	\$10,300.62

- Represents shares of Common Stock underlying a right to rescind being offered to certain purchasers of Common Stock of the Company.
- (2) The shares of Common Stock that are subject to the rescission offer were sold at prices ranging from \$4.56 to \$4.95 per share.
- (3) Represents shares of Common Stock underlying a right to rescind being offered to certain persons who exchanged units of limited partnership interest in the Anti-Gene Development Group at a ratio of 1100:1 on April 29, 1993.
- (4) The shares of Common Stock have been valued at \$4.56 per share based on the Company's sale of shares of Common Stock for \$4.56 per share on April 29, 1993, contemporaneous with its exchange offering.

- (5) Represents shares of Common Stock to be pledged by certain officers, directors and principal shareholders of the Company to secure the Company's payment of the Promissory Notes.
- (6) The shares of Common Stock to be pledged have been valued at \$6.00 per share based upon the initial value established for such shares in the Pledge Agreement.
- (7) Represents units of limited partnership interest in the Anti-Gene Development Group which may be issued to certain persons who exchanged units of limited partnership interest in the Anti-Gene Development Group at a ratio 1:1100 for shares of the Company's Common Stock on April 29, 1993.
- (8) The units of limited partnership interest have been valued at \$5,016 per unit based on the exchange ratio and the Company's sale of shares of Common Stock for \$4.56 per share on April 29, 1993, contemporaneous with the exchange offering.

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 THAT SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL HEREAFTER 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.

> ANTIVIRALS ANTI-GENE DEVELOPMENT GROUP

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CROSS REFERENCE SHEET SHOWING LOCATION IN PROSPECTUS OF INFORMATION REQUIRED BY ITEMS OF FORM S-4

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	TEM NUMBER AND CAPTION	PROSPECTUS CAPTION		
1.	Forepart of the Registration Statement and Outside			
	Front Cover Page of Prospectus	Outside Front Cover Page		
2.	Inside Front and Outside Back Cover Pages of			
	Prospectus	Inside Front Cover Page; Outside Back Cover Page		
З.	Risk Factors, Ratio of Earnings to Fixed Charges and			
	Other Information	Prospectus Summary; The Rescission Offer; Risk Factors		
	Terms of the Transaction	Prospectus Summary; The Rescission Offer		
5.	Pro Forma Financial Information	Not Applicable		
	Material Contracts with Company Being Acquired	Not Applicable		
7.	Additional Information Required for Reoffering by			
	Persons and Parties Deemed to be Underwriters	Not Applicable		
	Interests of Named Experts and Counsel	Not Applicable		
9.				
	for Securities Act Liabilities	Not Applicable		
	Information with Respect to S-3 Registrants	Not Applicable		
	Incorporation of Certain Information by Reference	Not Applicable		
	Information with Respect to S-2 or S-3 Registrants	Not Applicable		
	Incorporation of Certain Information by Reference Information with Respect to Registrants Other than S-3	Not Applicable		
14.	or S-2 Registrants	Not Applicable		
15	Information with Respect to S-3 Companies	Not Applicable		
	Information with Respect to S-2 or S-3 Companies	Not Applicable		
	Information with Respect to Companies Other than S-3	Not Applicable		
	or S-2 Companies	Summary Financial Data of the Company; Dividend Policy of the Company; Capitalization of the Company; Selected Financial Data of the Company		
		Management's Discussion and Analysis of Financ: Condition and Results of Operations of the Company; Business of the Company; Management of the Company; Certain Transactions of the Company and AGDG; Principal Shareholders of the Company Description of Securities of the Company; Share of the Company Eligible for Future Sale; Select		

of the Company Eligible for Future Sale; Selected Financial Data of AGDG; Management's Discussion and Analysis of Financial Condition and Results of Operations of AGDG; Business of AGDG; Management of AGDG; Description of Securities of AGDG; Principal Interest Holder of AGDG; Legal Matters; Experts

18.	Information if Proxies,	Consents or Authorizations Ar	e	
	to Be Solicited		. Not	Applicable

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19.	Information	if Proxies, Consents or Authorizations Are	
	Not to Be	Solicited	Not Applicable

#### PROSPECTUS

# RESCISSION OFFER TO CERTAIN SHAREHOLDERS OF ANTIVIRALS INC.

AntiVirals Inc. (the "Company") hereby offers to certain purchasers of the Company's Common Stock, \$0.0001 par value (the "Common Stock"), the right to rescind their acquisition of the Company's Common Stock and to receive in exchange for the Common Stock relinquished to the Company a payment equal to the purchase price of such Common Stock, or the return of the units of limited partnership interest in the Anti-Gene Development Group exchanged for such Common Stock, each plus interest at the applicable statutory rate in the state in which they reside (the "Statutory Rate") from the date of purchase or exchange, or if the Common Stock has been disposed of at a loss, the difference between the purchase price of such Common Stock and the price received upon disposition plus interest at the Statutory Rate from the date of disposition (the "Rescission Offer"). The securities that are the subject of the Rescission Offer include 667,436 shares of Common Stock that were sold between October, 1990 and March, 1994 at prices ranging from \$4.56 per share to \$4.95 per share and 625,537 shares of Common Stock that were issued during April, 1993 in exchange for units of limited partnership interest in the Anti-Gene Development Group (the "Subject Securities"). This information has been adjusted to reflect a 1-for-3 reverse split of the Company's Common Stock which was completed on November 4, 1996. The Rescission Offer is made only to persons who purchased the Subject Securities from the Company by payment or exchange (each, an "Eligible Offeree") and is not available with respect to any other securities purchased from the Company or to persons who purchased the Company's securities from any other person. During 1992, the Company's management conducted a review of its past operations, including capital-raising activities. At that time, although management did not identify any specific, material failures to comply with obligations imposed on the Company by applicable federal and state securities laws, management concluded that the record with respect to such activities was sufficiently incomplete that a conclusion could not be drawn with substantial certainty that such obligations were complied with in all material respects. Notwithstanding this conclusion, a review of the Company's securities offering documents, prepared in connection with sales of Common Stock by the Company between October, 1990 and March, 1994, indicated that the Company had omitted to disclose, or provided only limited disclosure with respect to, this conclusion to certain prospective purchasers of the Subject Securities. The offer and sale of the Subject Securities therefore may not have been undertaken in compliance with the Securities Act of 1933, as amended (the "1933 Act"), the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Oregon Securities Law or the securities laws of other states (collectively, the "Securities Laws"). The Rescission Offer is being made in order to limit, so far as may be permissible under the Securities Laws, the potential liability of the Company with respect to the offer and sale of the Subject Securities. The Securities and Exchange Commission takes the position that liabilities under the federal securities laws are not terminated by making a Rescission Offer. See "The Rescission Offer."

(CONTINUED ON NEXT PAGE)

NEITHER THE COMPANY NOR ITS BOARD OF DIRECTORS MAKE ANY RECOMMENDATION TO

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ANY SHAREHOLDER AS TO WHETHER TO ACCEPT THE RESCISSION OFFER OR TO RETAIN THE COMMON STOCK PURCHASED FROM THE COMPANY. EACH SHAREHOLDER MUST MAKE HIS OWN DECISION AS TO WHETHER TO ACCEPT THE RESCISSION OFFER.

The Rescission Offer Will Expire at 5:00 P.M., Portland, Oregon time, on June 27, 1997.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE UNDER THE LAWS OF THE UNITED STATES.

The date of this Prospectus is May 22, 1997.

The Company will pay to each Eligible Offeree who accepts the Rescission Offer an amount equal to the consideration paid to the Company by the Eligible Offeree for the repurchased securities or return the units of limited partnership interest in the Anti-Gene Development Group, together with interest from the date of purchase at the Statutory Rate (collectively, the "Rescission Price"). The Rescission Price will be paid promptly after June 16, 1997 (the "Expiration Date"). Eligible Offerees who obtained shares of Common Stock through the exchange of units of the Anti-Gene Development Group will be tendered units of the Anti-Gene Development Group and will be paid interest at the Statutory Rate in cash or notes as hereafter provided. The Rescission Price will be paid in cash to all other Eligible Offerees; provided, however, that to the extent that securities with an aggregate cash Rescission Price in excess of \$1,500,000 are tendered to the Company in response to the Rescission Offer, the Company may issue to rescinding securityholders in the state of Oregon and Colorado a portion of the Rescission Price in the form of secured promissory notes of the Company bearing interest at the rate of 9% per annum and with maturities of 18 months to 36 months. As a condition to obtaining an order from the Division of Finance and Corporate Securities of the state of Oregon permitting the Company to make the Rescission Offer to securityholders in the state of Oregon, the Company has agreed that, if the Company's proposed Unit Offering has been declared effective and has closed prior to the Expiration Date, no promissory notes will be issued and all Eligible Offerees who accept the Rescission Offer will be paid in cash and units of the Anti-Gene Development Group, as applicable. Each such Eligible Offeree will cease to be a shareholder of the Company with respect to any tendered shares upon payment by the Company of the Rescission Price. See "The Rescission Offer."

# All Eligible Offerees are urged to read this Rescission Offer carefully.

The Company has filed a registration statement on Form SB-2 with the Securities and Exchange Commission in connection with a proposed offering of 1,500,000 units (the "Unit Offering"), each consisting of one share of the Company's Common Stock and one warrant to purchase one share of the Company's Common Stock. Under the terms of the underwriting agreement between the Company and Paulson Investment Company, underwriter of the Unit Offering, the Unit Offering is conditioned on the Company's making this Rescission Offer. The Company does not presently intend that the registration statement filed by the Company in connection with the Unit Offering be declared effective until after this Rescission Offer has been declared effective. The Company presently anticipates, however, that it will seek to obtain the effectiveness of and close the Unit Offering prior to Expiration Date. Because the Rescission Price will be paid in cash rather than promissory notes to rescinding securityholders in the states of Oregon and Colorado if the Unit Offering has been declared effective and closed prior to the Expiration Date, the Company will notify all Eligible Offerees of the closing of the Unit Offering if such closing occurs prior to the Expiration Date. There can be no assurance that the Unit Offering will be successfully undertaken or that a public market for the Company's Common Stock will thereafter develop, if at all, at prices equal to or exceeding the amounts offered to offerees hereunder.

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PROSPECTUS SUMMARY

THE FOLLOWING SUMMARY IS QUALIFIED IN ITS ENTIRETY BY, AND SHOULD BE READ IN CONJUNCTION WITH THE MORE DETAILED INFORMATION AND THE FINANCIAL STATEMENTS AND NOTES THERETO APPEARING ELSEWHERE IN THIS PROSPECTUS. EXCEPT AS OTHERWISE NOTED, ALL INFORMATION IN THIS PROSPECTUS ASSUMES (I) NO EXERCISE OF THE OVERALLOTMENT OPTION, THE WARRANTS OR THE REPRESENTATIVE'S WARRANT IN CONNECTION WITH THE PROPOSED OFFERING OF 1,500,000 UNITS BY THE COMPANY AND (II) A 1-FOR-3 REVERSE SPLIT OF THE COMMON STOCK WHICH WAS COMPLETED ON NOVEMBER 4, 1996. SEE "DESCRIPTION OF SECURITIES".

THIS PROSPECTUS CONTAINS, IN ADDITION TO HISTORICAL INFORMATION, FORWARD-LOOKING STATEMENTS THAT INVOLVE RISKS AND UNCERTAINTIES. THE COMPANY'S ACTUAL RESULTS OR EXPERIENCE COULD DIFFER SIGNIFICANTLY FROM THOSE DISCUSSED IN THE FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE OR CONTRIBUTE TO SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE DISCUSSED IN "RISK FACTORS" AS WELL AS THOSE ELSEWHERE IN THIS PROSPECTUS.

#### THE COMPANY

ANTIVIRALS is a pioneer company in the field of gene-inactivating technology referred to as antisense and has developed a patented class of antisense compounds which may be useful in the treatment of a wide range of human diseases. The Company also has developed new drug delivery technology which may be useful with many FDA-approved drugs as well as with its antisense compounds. The Company's drug development program has two areas of near-term focus:

- NEU-GENE antisense compounds for selected applications, and
- CYTOPORTER drug delivery engines for enhanced delivery of FDA-approved drugs with delivery problems.

The Company's long-term product development program combines its NEU-GENE and CYTOPORTER technologies to produce combination drugs with potential applications for many human diseases. The Company has 20 issued patents and several patent applications covering the basic compositions of matter, methods of synthesis, and medical uses of NEU-GENE and CYTOPORTER compounds.

Antisense technology has the potential to provide safe and effective treatment for a broad range of diseases that previously have been difficult to address, including viral and host diseases. The Company's new approach uses synthetic compounds designed to inactivate selected genetic sequences that underlie the disease process and thereby halt the disease. Targeting genetic sequences with antisense compounds provides the selectivity that is not available in conventional drug development which typically targets proteins directly. The antisense approach specifically inhibits the mechanisms which underlie the production of disease-producing proteins.

To reach their therapeutic targets, many drugs must cross tissue and cellular barriers. Drugs that have an intracellular site of action must cross the lipid (fat-like) barrier of cellular membranes to move from the aqueous environment in blood into the interior of target cells. Therefore, these drugs must achieve solubility in both water and lipids. Since few compounds have these solubility characteristics, many drug candidates are a compromise between inherent solubility and effective delivery. This trade-off reduces efficacy and may significantly heighten toxicity of many drug candidates, as well as many FDA-approved drugs.

The Company has developed two distinct technologies to address the critical issues in drug development: selectivity for the target and delivery to the target. The Company's NEU-GENE antisense technology addresses the issue of drug selectivity and its CYTOPORTER drug delivery technology addresses delivery problems with FDA-approved drugs and antisense compounds. The patented structure of the Company's NEU-GENE compounds distinguishes its antisense technology from competing technologies and provides the selectivity for a single disease target that is the hallmark of antisense drug development. The

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Company's molecular engine, CYTOPORTER, is designed to transport drugs with delivery problems across the lipid barrier of cellular membranes into the interior of cells to reach their targets.

The first application of the Company's NEU-GENE antisense technology is designed to treat restenosis, a cardiovascular disease. The Company is currently in pre-clinical development with this compound and expects to file an IND to begin clinical trials in 1998. The Company's first planned drug delivery products combine its CYTOPORTER delivery engine with two FDA-approved drugs that have delivery problems. These drugs, cyclosporin and paclitaxel (Taxol-Registered Trademark-), will both be off patent by late 1997 and could have much broader usage if their delivery problems are reduced. The Company expects to file an IND to begin clinical trials with its enhanced form of cyclosporin and to initiate pre-clinical studies with its enhanced form of paclitaxel in 1998.

The Company plans to market its initial products through marketing agreements or other licensing arrangements with large pharmaceutical companies. The Company intends to retain manufacturing rights to all products incorporating its technology, whether such products are marketed directly by the Company or through collaborative agreements with industry partners.

The Company is a development stage biotechnology company which must achieve additional significant milestones before it can commercialize either NEU-GENE antisense compounds or its CYTOPORTER drug delivery engines. Successful commercialization of these potential products also is dependent on the Company's successful testing of and obtaining regulatory approval of the potential products. This testing and regulatory approval process, if successful, will not be completed for several years. The Company will require substantial funds to further develop its potential products and to commercialize the products that may be developed. There can be no assurance that the Company will achieve the necessary milestones, successfully test its proposed products, obtain necessary regulatory approvals, or obtain necessary financing to successfully commercialize its proposed products.

The Company's principal executive office is located at One S.W. Columbia, Suite 1105, Portland, Oregon 97258, where the telephone number is (503) 227-0554.

This Prospectus includes trademarks and registered trademarks of the Company, including NEU-GENE-Registered Trademark- and CYTOPORTER-TM-, and trademarks and registered trademarks of other companies.

### BACKGROUND

For most of its existence, the Company has operated with limited capital, most of which has been raised through periodic offerings of equity securities. During 1992, the Company's management conducted a review of its past operations, including capital-raising activities. At that time, although management did not identify any specific, material failures to comply with obligations imposed on the Company by applicable federal and state securities laws, management concluded that the record with respect to such activities was sufficiently incomplete that a conclusion could not be drawn with substantial certainty that such obligations were complied with in all material respects.

The Company believes that, as of the date of this prospectus, its potential rescission liability to shareholders for failure to comply with these obligations has been effectively eliminated by the running of applicable statutes of limitations. The capital raising activities which were the subject of this review were undertaken between May 1991 and October 1992. The Company's management was unable to conclude that, with respect to certain sales during this period, its records were sufficiently complete to demonstrate the availability of an exemption from registration in various jurisdictions, including Oregon, California, Colorado, District of Columbia, Florida, Illinois, Missouri, Nevada, New York, Texas, and Washington. Except for Nevada, which maintains a five-year statute of limitations, the applicable statutes of limitations in these jurisdictions for a claim arising from the sale of an unregistered security are variously two and three years. The Company accordingly believes that any such claims are time-barred.

Although the Company believes that such claims have been effectively eliminated by the running of applicable statutes of limitation, a review of the Company's securities offering documents prepared in connection with sales of Common Stock by the Company from October 1990 to March 1994 indicated that the Company had omitted to specifically disclose or quantify in such disclosure, or provided only limited disclosure with respect to its then potential rescission liablity to prospective purchasers of its Common Stock. Because this then potential rescission liability may have been deemed material to their investment decision by purchasers of its Common Stock, as a result of this omission or limited disclosure, the Company's management has been unable to conclude that sales of the Company's Common Stock made in accordance with those offering documents complied in all material respects with the securities laws. Management accordingly has determined that the Company would offer rescission to certain purchasers of its Common Stock, as practicable.

The following table summarizes the shares that are the result of this investment activity and which are the subject of this Rescission Offering, adjusted to give effect to a 1-for-3 reverse split of the Company's Common Stock which was completed on November 4, 1996.

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SALES SUBJECT TO PAYMENT OF CASH OR NOTES

STATE	DATES OF INVESTMENT	TYPE OF TRANSACTION	NUMBER OF SHARES	PER SHARE PRICE RANGE	TOTAL
Alabama	11/29/91	Investment in Common Stock	1,100	\$ 4.56	\$ 5,000
Colorado	08/06/92	Investment in Common Stock	1,667	4.56	7,600
Illinois	02/13/92 to 06/02/92	Investment in Common Stock	23,030	4.56	105,000
Massachusetts	04/10/92 to 01/07/94	Investment in Common Stock	17,302	4.56 to 4.95	84,750
Oregon	10/31/90 to 03/12/94	Investment in Common Stock	550,648	4.56 to 4.95	2,667,013
Texas	08/10/92	Investment in Common Stock	4,606	4.56	21,000
Washington	04/03/92 to 02/18/94	Investment in Common Stock	48,749	4.56 to 4.95	230,082
New Jersey	08/11/92	Investment in Common Stock	334	4.56	1,520
TOTAL			667,436		\$ 3,121,965

#### SHARES SUBJECT TO RETURN OF ANTI-GENE DEVELOPMENT GROUP UNITS

STATE	DATES OF INVESTMENT	TYPE OF TRANSACTION	TOTAL SHARES	EXCHANGE RATE	NUMBER OF UNITS
Alabama	04/29/93	Exchange of Limited Partnership Units	4,400	1:1100	4.00
Montana	04/29/93	Exchange of Limited Partnership Units	1,100	1:1100	1.00
Ohio	04/29/93	Exchange of Limited Partnership Units	44,000	1:1100	40.00
Oregon	04/29/93	Exchange of Limited Partnership Units	519,937	1:1100	472.67
Texas	04/29/93	Exchange of Limited Partnership Units	3,300	1:1100	3.00
Utah	04/29/93	Exchange of Limited Partnership Units	5,500	1:1100	5.00
Washington	04/29/93	Exchange of Limited Partnership Unit	36,300	1:1100	33.00
Wisconsin	04/29/93	Exchange of Limited Partnership Units	11,000	1:1100	10.00
TOTAL			625,537		568.67

The above tables reflect investments made by persons or entities who are currently residents of the states of Alabama, Colorado, Illinois, Massachusetts, Montana, New Jersey, Ohio, Oregon, Texas, Utah, Washington and Wisconsin. In addition, although the laws of the state of Florida permit the making of a Rescission Offer in connection with registration violations, the making of a rescission offer to residents of that state to cure a disclosure violation may not preclude a subsequent rescission action by such Offerees. The Rescission Offering accordingly is not being made to residents of Florida at this time and the potential rescission liability to those investors, related to the 22,021 shares held by them, could be as much as \$100,000 and one unit of limited partnership interest in the Anti-Gene Development Group, exclusive of interest.

The Company recently has achieved certain milestones in the development of its antisense and drug delivery technologies, including improvements in the manufacturing of its therapeutic products, preclinical studies with its antisense agents, clinical efficacy of its antisense technology in animal models, and filing of a patent application for its drug delivery technology. On January 28, 1997, the Company filed a registration statement with the Securities and Exchange Commission in connection with a proposed offering of 1,500,000 units, each consisting of one share of the Company's Common Stock and one warrant to purchase one share of the Company's Common Stock (the "Unit Offering"). The Company anticipates that the proceeds of the Unit Offering will be utilized to fund pre-clinical and clinical trial studies,

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additional research and development efforts, and for general working capital purposes. Under the terms of the underwriting agreement between the Company and Paulson Investment Company, Inc., underwriter of the Unit Offering, the Unit Offering is conditioned on the Company's conducting this Rescission Offering. The Unit Offering is proposed to be underwritten on a "firm commitment" basis and the obligation of the underwriter accordingly is not conditioned on the results of the Rescission Offer. The underwriter has informed the Company that the underwriter intends to proceed with the proposed Unit Offering regardless of the results of the rescission offering. There can be no assurance that a public market for the Company's Common Stock will thereafter develop, at prices equal to or exceeding the amounts offered to offerees hereunder.

#### PURPOSE OF RESCISSION OFFER

The securities that are the subject of the Rescission Offer include 667,436 shares of Common Stock at prices ranging from \$4.56 per share to \$4.95 per share, and 625,537 shares of Common Stock obtained upon the exchange of 568.67 units of limited partnership interest in the Anti-Gene Development Group ("AGDG"). Sales of the Subject Securities were conducted under offering documents which omitted to disclose or provided only limited disclosure that the Company's management was unable to conclude that the Company had complied in all material respects with its obligations under federal and state securities laws in connection with certain prior sales of securities, with the result that the Company may be deemed to have violated the requirements of the Securities Laws with respect to the offer and sale of the Subject Securities.

In order to limit, so far as may be permissible under the Securities Laws, the liability of the Company with respect to the offer and sale of the Subject Securities, the Company is unconditionally offering to repurchase all of the Subject Securities from Eligible Offerees for an amount equal to the purchase price of such securities plus interest from the date of purchase at the Statutory Rate, for the return of the units of limited partnership interest in the Anti-Gene Development Group exchanged for the Subject Securities plus interest from the date of the exchange at the Statutory Rate, or, if the Common Stock has been disposed of at a loss, for an amount equal to the difference between the purchase price of such Common Stock and the price received upon disposition plus interest at the Statutory Rate from the date of disposition (the "Rescission Price"). The Securities and Exchange Commission takes the position that liabilities under the federal securities laws are not terminated by making a Rescission Offer. Subject to the closing of the Unit Offering on terms and conditions acceptable to the Company, the Rescission Price will be payable promptly after June 27, 1997 (the "Expiration Date"). See "Payment of the Rescission Price."

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The following table sets forth the Statutory Rate of interest applicable under state laws:

#### STATUTORY INTEREST

STATE	RATE OF INTEREST PER ANNUM	STATUTORY BASIS
Alabama	6%	Ala. Code Section 8-8-10
Colorado	8%	Colo. Rev. Stat. Section 5-12-101
Illinois	10%	Ill. Rev. Stat. Section 13[5/13]C.
Massachusetts	6%	Mass. Gen. Laws Ann. Ch. 110A, Section 410(e)
Montana	10%	Mont. Code. Ann. Section 30-10-307
New Jersey	12%	N.J. Rev. Stat. Section 49:3-71(e)
Ohio	10%	Ohio Rev. Code Ann. Section 1343.03
Oregon	9%	Or. Rev. Stat. Section 82.010
Texas	6%	Tex. Code. Ann. Section 5069-1.03
Utah	12%	Utah Code Ann. Section 15-1-1
Washington	8%	Wash. Rev. Code Section 21.20.430(4)(b)
Wisconsin	5%	Wisc. Stat. Section 138.04

#### EFFECT OF ACCEPTANCE OF RESCISSION OFFER

The Company believes that its potential liability under applicable state securities laws for the sale or exchange of securities with inadequate disclosure will be eliminated with respect to each Eligible Offeree who accepts the Rescission Offer and sells the Subject Securities back to the Company. However, the fact that the Company may issue promissory notes in lieu of cash to rescinding shareholders if the aggregate Rescission Price exceeds \$1,500,000 may limit the preclusive effect of the Rescission Offer in Oregon and Colorado. The fact that the Company will provide to certain rescinding shareholders units of limited partnership interest in AGDG in lieu of cash may limit the preclusive effect of the Rescission Offer in Alabama, Montana, Ohio, Oregon, Texas, Utah, Washington, and Wisconsin. Moreover, the Securities and Exchange Commission takes the position that liabilities under the federal securities laws are not terminated by making a rescission offer.

This Prospectus constitutes notice, as required by Oregon Revised Statutes ("ORS") 59.125, of the Company's offer to pay the Rescission Price upon tender of the Common Stock subject to this Rescission Offer ("Notice"). Pursuant to ORS 59.125, an offeree may not commence an action under ORS 59.115 (which provides for liability in connection with sales of securities in violation of the Oregon Securities Laws or by means of a material misstatement or omission) with respect

to his or her purchase of the Common Stock subject to this Rescission Offer after receipt of this Notice unless (i) if the Eligible Offeree owns such Common Stock when this Prospectus is received, he or she accepted the Rescission Offer prior to the Expiration Date and has not been paid the full amount due thereunder, or (ii) if the Eligible Offeree does not own such Common Stock when this Prospectus is received, he or she so notifies the Company in writing within 30 days of such receipt. A failure of any Eligible Offeree to respond to this Notice within the prescribed period of time will have the effect of precluding such Eligible Offeree from commencing an action under ORS 59.115. States other than Oregon, including Alabama, Colorado, Illinois, Massachusetts, Montana, New Jersey, Ohio, Texas, Utah, Washington and Wisconsin, have similar laws regarding the effect of a decision not to accept the Rescission Offer.

ORS 59.125 and Colo. Rev. Stat. 11-51-604(9)(a)(i) do not expressly permit the issuance of promissory notes in lieu of cash in a rescission offering. Although no Oregon court has addressed this issue in a reported decision, a Colorado appellate court, construing the Colorado Statute, has ruled that a party accepting a promissory note in lieu of cash in a rescission offering may not commence an action for violation of securities laws relating to the original sale. Although it has not expressed an opinion on this

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issue, the Oregon Division of Finance and Corporate Securities has previously permitted a party in a rescission offering of promissory notes in lieu of cash to maintain that the sole remedy of a party who accepted the offer was to bring suit on the notes and that any other remedies the investor might have had under the Oregon Securities Laws were extinguished by the rescission offering. Although the Company believes that the Rescission Offering will have preclusive effect if all of the Oregon and Colorado holders of 1,072,252 shares of the Company's Common Stock were to successfully assert claims against the Company, the Company would be required to pay those holders approximately \$2,674,613, plus approximately 473 units of limited partnership in AGDG, plus statutory interest.

Although the state rescission statues generally require the Company to tender to eligible shareholders the consideration paid by such shareholders for the Company's Common Stock, the fact that the Company will provide to certain rescinding shareholders units of limited partnership interest in AGDG in lieu of cash may limit the preclusive effect of the Rescission Offer in Alabama, Montana, Ohio, Oregon, Texas, Utah, Washington, and Wisconsin. Although the Company believes that the Rescission Offer will have preclusive effect, if all of the holders of the 625,537 shares of the Company's Common Stock offered the limited partnership interest in AGDG successfully asserted claims against the Company, the Company could be required to pay these holders approximately \$2,852,449. Even if the Company were successful in defending any securities law claims, the assertion of such claims against the Company additionally would result in costly litigation and significant diversions of effort by the Company's management.

To the extent that Eligible Offerees affirmatively reject or fail to respond to the Company's Rescission Offer, potential liability of the Company under the 1933 Act may not be completely extinguished. Nevertheless, under those circumstances, the Company will assert that an Eligible Offeree who affirmatively rejects or fails to respond to the Company's Rescission Offer has released his claims to recover the purchase price of the securities and that such claims further are barred by applicable statutes of limitation. The Securities and Exchange Commission takes the position that liabilities under the federal securities laws are not terminated by making a rescission offer. If the affirmative rejection or failure to respond to the Rescission Offer does not act as a release of claims, each Eligible Offeree who affirmatively rejects or fails to respond to the Rescission Offer would retain any rights or claims such Eligible Offeree may have under the federal securities laws, subject to the statute of limitations with respect to such rights and claims. In general, for a claim based on violations of the registration provisions of the federal securities laws, such a claim must be brought within one year after discovery of the violation upon which the claim is based, provided that, in no event may such claims be brought more than three years after the occurrence of the violation.

The Company accordingly believes that the applicable statute of limitations has run with respect to such claims. In addition, the Rescission Offer will not prevent the Securities and Exchange Commission from pursuing enforcement action against the Company with respect to any violations of the federal securities laws that may have occurred.

A decision to reject the Rescission Offer will not affect the restricted status of the Common Stock held by the Eligible Offerees. See "Description of Securities--Restrictions on Transfer."

# PROVISION OF UNITS OF LIMITED PARTNERSHIP INTEREST IN ANTI-GENE DEVELOPMENT GROUP

The Company will return to certain purchasers of the Company's Common Stock, if they accept the Rescission Offer, units of limited partnership interest in AGDG exchanged for the Company's Common Stock on or about April 29, 1993.

AGDG was formed in 1981 under the Oregon Uniform Limited Partnership Act for the purpose of funding the development of and obtaining the proprietary rights to Anti-Genes. Prior to 1993, AGDG periodically contracted with the Company to develop the technologies while retaining the rights to the resultant technologies. Substantially all of the proceeds from sales of interests in AGDG and interest income were paid to the Company under the terms of these research and development contracts.

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Sole management of AGDG is vested in the general partner. The general partner of AGDG is Dr. James Summerton, founder and Chairman and Chief Executive Officer of the Company until January 1996. Dr. Summerton presently serves as President and Chief Scientific Officer of the Company. Dr. Summerton receives no fees or other remuneration for his management of AGDG.

In February 1993, to facilitate additional capital raising activities associated with the development of the technologies, AGDG and the Company entered into a Technology Transfer Agreement whereby, effective May 19, 1993, AGDG conveyed all intellectual property in its control to the Company. In consideration of this transfer, the Company is obligated to pay to AGDG certain technology transfer fees arising from the sale of products incorporating the technologies. See "Effect of Rescission Offering on the Anti-Gene Development Group and Technology Transfer Agreement."

During March, 1993, the Company offered all holders of interests in AGDG the opportunity to exchange their units of limited partnership interest for shares of the Common Stock of the Company at a ratio of 1,100 shares of Common Stock for each unit exchanged. The exchange ratio was determined based on historical perceptions by the partners of AGDG and shareholders of the Company as to the relative values of AGDG, but was not confirmed by financial analysis of any kind. The exchange offer was the subject of a fairness hearing conducted by the Oregon Department of Insurance and Finance on April 19, 1993, and after such hearing the Oregon Department of Insurance and Finance issued an order permitting the exchange offering to proceed.

Prior to the exchange offering, there were 3665.5 units of limited partnership interest in AGDG outstanding. Holders of 1,809.5 units exchanged those units for shares of Common Stock of the Company in the offer. As of the date of this Prospectus, 1856 units of limited partnership interest in AGDG are outstanding. If all Eligible Offerees who participated in the exchange offer tender their 625,537 shares and 568.67 units of limited partnership interest will be outstanding.

The Company and AGDG believe that the rights of an interest holder in AGDG upon completion of this Rescission Offering are equivalent to the rights of an interest holder immediately prior to the 1993 exchange offering. In addition to cash and cash equivalents of approximately \$189,000 as of December 31, 1996, AGDG's principal asset, as it was prior to the exchange offering, is the right to technology transfer payments arising from the sale of products incorporating

the transferred technologies. The units of limited partnership interest in AGDG are speculative investments and unit holders bear the risk of the loss of their entire investment. In addition, the investment in units of limited partnership interest in AGDG is subject to additional risks, including the lack of a public market for the interests, uncertainty of the utility and commercial viability of the technologies, uncertainty of the superiority of the technologies, and uncertainty in the obtaining of adequate financing to achieve effective commercialization of products arising from the technologies. AGDG's achievement of revenues based on the technology transfer fees is based on the successful commercialization of the technologies by the Company. For a detailed statement of the risks associated with the Company, see "Risk Factors."

# EFFECT OF RESCISSION OFFERING ON THE ANTI-GENE DEVELOPMENT GROUP AND TECHNOLOGY TRANSFER AGREEMENT

The Company will return to certain purchasers of the Company's Common Stock, if they accept the Rescission Offer, units of limited partnership interest in the Anti-Gene Development Group exchanged for the Company's Common Stock on or about April 29, 1993.

On February 9, 1993, the Company and AGDG entered into a Technology Transfer Agreement wherein effective May 19, 1993, AGDG conveyed all intellectual property in its control related to antisense technology (the "Intellectual Property") to the Company. As part of the conveyance, the Company tendered to AGDG for liquidation all partnership units received pursuant to an exchange offer and received a 49.37 percent undivided interest in the intellectual property. The Company then purchased the

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remaining undivided interest in the Intellectual Property in consideration of payments of 4.05% of gross revenues in excess of \$200 million, if any, derived 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 "Technology Fees"). The level of this Technology Fee was fixed based on the level of participation of AGDG interestholders in the 1993 exchange offering. Under that offer, if all 3665.5 units of the limited partnership then outstanding were exchanged, the Technology Fee would be 0%. If no interests were exchanged, the fee would be 8%. The fee was reduced on a pro rata basis for each unit exchanged. See "Comparison of Units of Limited Partnership Interest in the Anti-Gene Development Group before the 1993 Exchange Offer and Units of Limited Partnership Interest Offered Hereby." The Company's obligation to make payments of the Technology Fees with respect to a particular product terminates upon the expiration of all patents transferred to the Company pursuant to the Technology Transfer Agreement related to that product.

Pursuant to a License and Option Agreement by and between AGDG and the Company dated February 9, 1993 (the "License Agreement"), the Company granted to AGDG a royalty-free non-exclusive 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, the Company has the right to commercialize and market such products in consideration of payments of 4.05% of gross revenues, in excess of the \$200 million exemption for all products utilizing the Intellectual Property, to AGDG. If the Company elects not to commercialize the proposed AGDG product or fails to meet certain product development milestones, the Company is required to grant AGDG a license to develop and market the proposed product (an "AGDG License"). The Company is entitled to payments for the AGDG license but only if the proposed product incorporates patented improvements developed by the Company to the Intellectual Property. The amount of the license fee payable to the Company by AGDG pursuant to an AGDG License, if any, is equal to the percentage payable to AGDG for products sold by the Company and 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 such time as the Company has 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.

AGDG's entitlement to Technology Fees constitutes a material asset of AGDG. The payment of such fees is dependent upon the successful commercialization of products incorporating the Intellectual Property by the Company, which is dependent in part on the Company's ability to raise capital on terms and conditions acceptable to the Company. To facilitate the making of the Rescission Offer, which is a condition to the underwriting of the Company's proposed Unit Offering, AGDG has agreed to issue units of limited partnership interest to certain shareholders of the Company who accept the Rescission Offer in consideration of the Company's agreement to increase the Technology Fees and License Agreement fees. This increase will be determined by the formula originally negotiated by the Company and AGDG in connection with the 1993 exchange offer and technology transfer. The amount of any increase will depend on the number of units of limited partnership interest that Anti-Gene Development Group is required to issue in connection with the Rescission Offer. If all 625,537 shares are tendered for rescission and 568.67 units of limited partnership interest are required to be issued in payment therefor, the Technology Fees and License Agreement fees would increase to 5.27% of sales in excess of the \$200 million exemption. If no shares are tendered for rescission and no units of limited partnership interest are required to be tendered therefor, the Technology Fees and License Agreement fees will remain 4.05%. See "Comparision of Units of Limited Partnership Interest in Anti-Gene Development Group before the 1993 Exchange Offer and Units of Limited Partnership Interest Offered Hereby."

On January 20, 1997, AGDG and the Company amended the Technology Transfer Agreement to reduce the Technology Fees arising from the sale of diagnostic products from 4.05% to 2% and to remove the \$200 million exemption with respect to sales of such diagnostic products. For purposes of the

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amendment, a diagnostic product is defined to include any product which is approved for detecting or quantitating outside any animal body one or more selective nucleic acid sequences. A therapeutic product is defined to include any product which is approved for use in or is used in a human or other animal to achieve a therapeutic or prophylactic effect. AGDG and the Company believe that such an adjustment was necessary in connection with potential diagnostic applications of the Intellectual Property because negotiated license fees or royalties in connection with diagnostic products typically are lower than those for therapeutic products and the prior rate exceeded the levels that would permit the licensing of the technologies to third parties on favorable terms and conditions. The Company also granted to AGDG a royalty-bearing license to make, use and sell small quantities of product derived from the Intellectual Property for research purposes only. The Technology Fees arising from the sale of diagnostic products will not be adjusted if the Anti-Gene Development Group issues units of limited partnership interest in connection with the Rescission Offer. Based on the amendment, the Technology Fee for therapeutic products remains 4.05% of gross revenues of sales in excess of \$200 million and the fee for diagnostic products is 2% of gross revenues of sales with no sales exemption.

The original Technology Fee and the 2% Technology Fee for diagnostic products were determined by negotiation between Dr. Burger, on behalf of the Company, and Dr. Summerton, on behalf of AGDG, subject to approval of the negotiated amounts by the Board of Directors of the Company. The fees negotiated reflect fees deemed appropriate by the parties based on fee structures proposed by potential strategic partners of the Company and AGDG. The Company's Board of Directors recognized that Dr. Summerton had a direct conflict of interest in these negotiations and required that the original agreement and amendment be approved by a majority of disinterested directors after disclosure of the conflict.

COMPARISON OF UNITS OF LIMITED PARTNERSHIP INTEREST IN THE ANTI-GENE DEVELOPMENT GROUP BEFORE THE 1993 EXCHANGE OFFER AND UNITS OF LIMITED PARTNERSHIP INTEREST OFFERED HEREBY

The share of profits and losses to which each partner is entitled is

established by the Anti-Gene Development Group Certificate of Limited Partnership. See "Description of the Securities of AGDG." Profits, if any, are distributed pro rata to all partnership interests.

Prior to the 1993 exchange offering, there were 3665.5 units of limited partnership interest of AGDG outstanding. Pursuant to the Technology Transfer Agreement between the Company and AGDG, entered prior to the exchange offer, in addition to cash of approximately \$190,000, the principal asset of AGDG was the right to receive Technology Fees arising from the sale of therapeutic or diagnostic products incorporating the technologies transferred by AGDG to the Company. The amount of these payments, a percentage of the gross revenues from sales in excess of \$200 million, was to be fixed by the level of participation by AGDG interest holders in the 1993 exchange offering. If all 3665.5 units were exchanged and no units of limited partnership interest in AGDG remained outstanding, the Technology Fee would be 0%. If no interests were exchanged, the fee would be 8%. Immediately prior to the exchange offering, each holder of a unit of limited partnership interest in AGDG enjoyed a 1/3666 interest in any profits derived from a Technology Fee of 8% of gross revenues from therapeutic or diagnostic sales in excess of \$200 million or approximately .002% of such gross revenues per unit. The fee was subject to ratable reduction from 8% to 0%, depending on the number of limited partnership interests exchanged. Because holders exchanged 1809.5 units of limited partnership interest in AGDG in the 1993 offer, 1856 units were outstanding after the offer and the Technology Fee was reduced to 4.05%. Interest holders' entitlement to profits remained unchanged, at approximately .002%, because the reduction in the Transfer Fee corresponded to the reduction in outstanding units of limited partnership interest.

In January 1997, the Technology Transfer Agreement was amended to reduce the Transfer Fees payable from sales of diagnostic products from 4.05% to 2% and to remove the \$200 million exemption. This amendment was requested by AGDG based on the determination, subsequent to the negotiation of the Technology Transfer Agreement, that the payment of Technology Fees of 4.05% might render

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commercialization of the technologies for diagnostic use unprofitable due the lower royalties paid for diagnostic products.

As of the date of this Prospectus, the principal asset of AGDG, in addition to cash of approximately \$189,000, remains the right to receive the Technology Fees. If all Eligible Offerees who participated in the exchange offer tender their 625,537 shares and 568.67 units of limited partnership interest are issued therefor, 2424.67 units of limited partnership interest will be outstanding. The Technology Fees would increase to 5.27% of gross revenues arising from sales of therapeutic products in excess of the \$200 million exemption but would remain at 2% with respect to sales of diagnostic products. The pro rata share of profits derived from therapeutic sales enjoyed by a rescinding Eligible Offeree, 1.2425 of 5.27% or approximately .002%, would be equal to that of an interest holder both immediately prior to and after the 1993 exchange offer. Although the pro rata share of profits derived from therapeutic product sales would be reduced to 1/2425 of 2% or .001%, this reduction is accompanied by the elimination of the \$200 million sales exemption.

No Technology Fees have been paid by the Company to AGDG and there can be no assurance that Company will successfully commercialize the technologies. For a detailed statement of the risks associated with the Company, see "Risk Factors."

### CERTAIN TAX CONSIDERATIONS RELATING TO THE RESCISSION OFFER

An Eligible Offeree's acceptance of the Rescission Offer and receipt of the payment thereunder will be a taxable event for both state and federal income tax purposes. However, if the amount received by the Eligible Offeree as a result of the acceptance of the Rescission Offer does not exceed the tax basis for the securities surrendered, there will be no realized taxable gain. Amounts received as interest in connection with the Rescission Offer will be taxable to the recipient at ordinary income tax rates. BECAUSE OF UNCERTAINTIES RELATING TO THE FEDERAL, STATE AND LOCAL INCOME TAX TREATMENT OF ACCEPTANCE OF THE OFFER OF RESCISSION, ELIGIBLE OFFEREES WHO MAY WISH TO ACCEPT THE RESCISSION OFFER ARE URGED TO CONSULT THEIR PERSONAL TAX ADVISORS BEFORE ACCEPTING OR REJECTING THE RESCISSION OFFER.

# PROCEDURES FOR TENDERING SECURITIES

For an Eligible Offeree to validly tender securities pursuant to the Rescission Offer, a properly completed Request for Rescission in the form attached hereto, evidencing the decision of the Eligible Offeree to accept the Rescission Offer, must be received by the Company at its principal executive offices (One S.W. Columbia, Suite 1105, Portland, Oregon 97258) on or before 5:00 p.m., Portland, Oregon time, on or before June 27, 1997, the Expiration Date. Documentation received by the Company other than at the address specified above or after 5:00 p.m. on the Expiration Date, incomplete or invalid documentation, or documentation purporting to accept the Rescission Offer in a manner not permitted by the terms of the Rescission Offer will not be deemed to constitute acceptance of the Rescission Offer. Pursuant to ORS 59.125, an Eligible Offeree must accept the payment offer within 30 days of receipt of the rescission notice. States other than Oregon, including Alabama, Colorado, Illinois, Massachusetts, Montana, New Jersey, Ohio, Texas, Utah, Washington and Wisconsin, have similar laws permitting the offeree not more than 30 days after receipt of a rescission offer within which to accept the offer.

The Request for Rescission must be accompanied by Common Stock certificates representing all (and not less than all) of the Subject Securities purchased by the Eligible Offeree in any particular transaction. If an Eligible Offeree purchased Subject Securities from the Company in more than one transaction, such Eligible Offeree may accept the Rescission Offer with respect to the securities purchased in one transaction and reject the Rescission Offer with respect to securities purchased in other transactions. The Rescission Offer does not apply to any securities of the Company other than the Subject Securities.

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The Request for Rescission and stock certificates may be delivered by hand or courier service, or by mail. Each stock certificate must be duly endorsed in blank by the registered holder thereof and the signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations, and credit unions with membership in an approved signature guarantee medallion program). The Company's stock transfer agent, ChaseMellon Shareholder Services, has advised the Company that, as a security device for the protection of shareholders and the Company, securities tendered for cancellation should include signatures with respect to which a guarantee has been obtained. This is a common requirement of ChaseMellon Shareholder Services. The method of delivery of all documents is at the election and risk of the Eligible Offeree. If delivery is by mail, registered mail, return receipt requested, properly insured, is recommended. The Company will seek to notify Eligible Offerees who submit incomplete or invalid Requests for Rescission to the Company by mailing notice of the same to the Eligible Offeree's last known address prior to deeming the Rescission Offer rejected by the Eligible Offeree.

Tenders of shares made pursuant to the Rescission Offer may be withdrawn by written notice to the Company at any time prior to the Expiration Date.

### PAYMENT OF THE RESCISSION PRICE

At the Expiration Date, the Company will become obligated to pay the Rescission Price to each Eligible Offeree who has properly tendered shares pursuant to the Rescission Offer and has not withdrawn such tender prior to the Expiration Date. Each such Eligible Offeree will cease to be a shareholder of the Company with respect to the tendered shares upon payment by the Company of the Rescission Price. Payment for any shares of Common Stock validly tendered and not withdrawn will be made promptly after the Expiration Date.

The Company has reserved up to \$1,500,000 in cash to cover liabilities under this Rescission Offering. To the extent that shares with an aggregate cash Rescission Price in excess of \$1,500,000 are tendered to the Company pursuant to the Rescission Offer, the Company may issue to rescinding shareholders in the states of Oregon and Colorado a portion of the Rescission Price in the form of promissory notes of the Company bearing interest at a rate of 9% per annum and with maturities ranging from 18 months to 36 months (the "Notes"). As a condition to obtaining an order from the Division of Finance and Corporate Securities of the state of Oregon permitting the Company to make the Rescission Offer to securityholders in the state of Oregon, the Company has agreed that, if the Company's proposed Unit Offering has been declared effective and has closed prior to the Expiration Date, no Notes will be issued and all Eligible Offerees who accept the Rescission Offer will be paid in cash and units of the Anti-Gene Development Group, as applicable. The Company presently anticipates that it will seek to obtain the effectiveness of and close the Unit Offering prior to the Expiration Date. Because the Rescission Price will be paid in cash rather than Notes to rescinding securityholders in the states of Oregon and Colorado if the Unit Offering has been declared effective and closed prior to the Expiration Date, the Company will notify all Eligible Offerees if such closing occurs prior to the Expiration Date.

Shareholders who reside in Oregon and Colorado may receive Notes because there is administrative or judicial precedent in those jurisdictions for the issuance of promissory notes in connection with a rescission offering. The first \$1.5 million of rescission liabilities will be paid in cash; the next \$1 million will be paid in Notes with a term of 18 months, bearing interest at 9% per annum; the next \$1 million will be paid in Notes with a term of 24 months, bearing interest at 9% per annum; the next \$1 million will be paid in Notes with a term of 30 months, bearing interest at 9% per annum; the balance of rescission liabilities will be paid in Notes having a term of 36 months, bearing interest at 9% per annum. Priority with respect to the payment of cash will be given to rescinding shareholders who resided in states other than Oregon and Colorado at the time they purchased or otherwise obtained their shares, to the extent of their cash investment in such shares and statutory interest thereon and, in the case of former holders of units of interest in AGDG who resided in states other than Oregon and Colorado, to the extent of their statutory interest thereon. After the payments to such shareholders, the remainder of the rescission liabilities will be

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paid to shareholders who resided in Oregon and Colorado on a pro rata basis. Accordingly, for example, if the aggregate rescission price exceeds \$3 million, each rescinding shareholder who resided in states other than Oregon and Colorado at the time they purchased or otherwise obtained their shares will receive their Rescission Price in cash, or units of interest in AGDG, as applicable, and cash payment of statutory interest thereon, and each other rescinding shareholder will receive its pro rata share of cash, 18-month Notes, 24-month Notes, and units, as applicable. Interest on the Notes will be paid quarterly and all principal will be due at the end of the term of the Note.

Payment by the Company of its obligations under the Notes will be secured by a pledge of shares of the Common Stock of the Company held of record by certain of the Company's directors, officers and principal shareholders (the "Pledgors"), including Dr. Denis R. Burger, Dr. James E. Summerton, Dr. Dwight D. Weller, Nick Bunick, Dr. Donald R. Johnson, Dr. James E. Reinmuth and Cascadia Pacific Management, LLC for the benefit of the Oregon Resource Technology and Development Fund. The Pledgors have agreed to pledge the shares of Common Stock to facilitate the making of the Rescission Offer. As of the date of this Prospectus, the Pledgors hold of record 3,569,030 shares of the Common Stock of the Company, which shares may be pledged to secure payment of the Notes.

Under the terms of the Pledge Agreement, prior to the closing of the Company's proposed offering of 1,500,000 units, the Pledgors have agreed to

maintain as security for payment of the Notes sufficient shares of Common Stock of the Company that the aggregate value of such shares, based on an estimated value of \$6.00 per share, equals 120 percent of the outstanding principal amount of the Notes. After the closing of the proposed unit offering or any other public offering, the Pledgors have agreed to maintain as security for payment of the Notes sufficient shares of Common Stock of the Company that the aggregate value of such shares, based on the last reported sales price of the Company's Common Stock on the last day of the preceding month, equals 120 percent of the outstanding principal amount of the Notes. The Pledge Agreement provides that, in the event of a default by the Company in the payment of the Notes, shares of the Company's Common Stock subject to the pledge will be sold and the proceeds applied to payment of obligations. To facilitate the sale of the shares in the event of a default in the payment of the Notes, the shares have been registered for sale with the Securities and Exchange Commission.

If all Eligible Offerees tender their shares and the Company's proposed Unit Offering has not been declared effective and has not closed prior to the Expiration Date, the Company will be required to issue Notes with a principal amount of approximately \$3,750,965. The Pledgors have agreed to contribute shares on a share-for-share basis until a sufficient number of shares has been pledged. The number of shares required to be pledged if Notes in the approximate principal amount of \$3,750,965 are issued and the maximum number of shares that may be pledged by each Pledgor are 41,151 and 41,151, respectively, for Dr. Burger 169,608 and 2,394,587, respectively, for Dr Summerton 169,608 and 249,300, respectively, for Dr. Weller, 167,400 and 167,400 respectively, for Mr. Bunick, 14,334 and 14,334, respectively, for Dr. Johnson 18,484 and 18,484, respectively, for Dr. Reinmoth, and 169,608 and 957,452, respectively, for the Oregon Resource Technology and Development Fund.

The Company has been unprofitable since its inception and has received no material revenues from the sale of products or other sources. The Company does not anticipate material revenues in the near term. The proceeds of the Company's proposed Unit Offering are the only source of capital potentially available in the near term to the Company, other than its existing cash and cash equivalents. There can be no assurance that the proposed Unit Offering will be successfully undertaken by the Company. Even if successful, although the Company's management enjoys broad discretion with respect to the use of proceeds from the Unit Offering, there can be no assurance that proceeds will be applied to the payment of the Notes or that any proceeds will be available therefor upon the maturity of the Notes. Moreover, based on the Company's current operating plan, if the Company experiences unanticipated cash requirements during the next 24 months, including without limitation cash required to pay holders of a significant number of shares of its Common Stock in connection with the rescission offering, the Company could require significant additional capital to fund operations, continue research and development programs,

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pre-clinical and clinical testing of its potential antisense and drug delivery compounds, commercialize any products that may be developed and make payments on the Notes. There can be no assurance that, however, that additional funds will be available, if at all.

There previously has been no public market for the Company's Common Stock and there can be no assurance that an active public market for the Common Stock will be developed or sustained after the Rescission Offer. In addition, even if such a public market does develop, the obligations of the Pledgors to pledge shares is limited to shares held of record by the Pledgors as of the date of this Prospectus and there can be no assurance that the value of the Company's Common Stock on such public market will be sustained at levels so that the shares subject to the pledge will be sufficient to satisfy the obligations of the Company in the event of a default by the Company in the payment of the Notes. Regardless of the sufficiency of the pledged shares, the Pledgors have no recourse liability on the Notes.

SUMMARY FINANCIAL DATA OF THE COMPANY

		ENDED ER 31,	PERIOD FROM JULY 22, 1980 (INCEPTION) THROUGH				
		1996					
				THREE-MONTH PERIOD ENDER MARCH 31,		1980	
				1996	1997	TO MARCH 31, 1997	
				(UNAUDITED)	(UNAUDITED)	(UNAUDITED)	
STATEMENTS OF OPERATIONS DATA: Revenues, from grants and research							
contracts			\$ 689,497	\$	ş	\$ 689,497	
Operating expenses: Research and development General and administrative	2,097,796 609,723	1,729,554 613,811	9,011,574		170,028	4,719,610	
Total operating expenses	2,707,519	2,343,365			621,751		
Other income	68,133	228,776	446,176	170,639	29,055	475,231	
Net loss	\$(2,556,886)	\$(2,087,362)					
Net loss per share(1)	\$ (0.37)			\$ (0.04)	\$ (0.07)		
Shares used in per share calculation(1)		8,233,548		7,109,810	8,233,548		

		MARCH 31, 1997				
	DECEMBER 31, 1996	ACTUAL	AS ADJUSTED (2)	AS ADJUSTED (3)	AS ADJUSTED (4)	
BALANCE SHEET DATA Working capital Total assets Common stock subject to	\$ 2,738,677 \$ 4,248,899	1,959,519 3,699,483	\$ 13,567,019 15,306,983	\$ 12,067,019 13,806,983	\$ 12,067,019 13,806,983	
rescission Deficit accumulated during the	3,121,965	3,121,965	3,121,965	2,229,401		
development stage Total shareholders' equity	(12,425,483)	(13,018,179)	(13,018,179)	(13,625,615)	(15,142,837)	
(deficit)	796,127	203,431	11,810,931	11,203,495	9,686,273	

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(1) See Note 2 of Notes to Financial Statements for an explanation of the determination of the number of shares used in computing net loss per share.

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- (2) Adjusted to give effect to the application of the estimated net proceeds of the Company's Unit Offering based upon an assumed initial public offering price of \$9.00 per Unit. See "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."
- (3) Assumes that shares with an aggregate Rescission Price of \$1.5 million are tendered for rescission, which represents the cash portion of the Company's potential payments under the Rescission Offer.
- (4) Assumes that shares with an aggregate Rescission Price of \$5,246,623 are tendered for rescission, the first \$1.5 million of which is paid in cash and the next \$3,746,623 is paid through the issuance of the Company's one and one-half year to three-year 9% notes.

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# RISK FACTORS

THE COMMON STOCK THAT IS THE SUBJECT OF THIS RESCISSION OFFER INVOLVES A SUBSTANTIAL DEGREE OF RISK AND SHOULD BE REGARDED AS SPECULATIVE. ELIGIBLE OFFEREES SHOULD CAREFULLY CONSIDER, IN ADDITION TO THE MATTERS SET FORTH ELSEWHERE IN THIS PROSPECTUS, THE FOLLOWING FACTORS RELATED TO THE BUSINESS OF THE COMPANY AND THE RESCISSION OFFERING.

POTENTIAL RESCISSION LIABILITY. This Rescission Offering is being made to all holders of the Subject Securities. If all of the Eligible Offerees who are holders of the Subject Securities accept the Rescission Offer, the Company would be required to make payments in the amount of \$3,121,965, plus interest at the Statutory Rate in the approximate amount of \$2,129,000, plus applicable interest on the Notes, plus approximately 568.67 units of limited partnership interest in AGDG. Although the Company has limited the amount of its cash payments to \$1,500,000, the payment of any amount in cash or pursuant to the Notes will reduce the liquidity and financial resources of the Company and may adversely affect the future growth of the Company as well as its financial condition and results of operations.

The Company believes that its potential liability under state securities laws for the sale or exchange of securities with inadequate disclosure will be eliminated with respect to each Eligible Offeree who accepts the Rescission Offer and sells the Subject Securities back to the Company. However, the fact that the Company may issue promissory notes in lieu of cash to rescinding shareholders residing in Oregon and Colorado if the aggregate Rescission Offer in Oregon and Colorado. If all Oregon and Colorado holders of the 1,072,252 shares successfully asserted claims against the Company, the Company would be required to pay these holders approximately \$2,674,613, plus approximately 472.67 units of limited partnership interest in AGDG, plus statutory interest. Even if the Company were successful in defending any securities law claims, the assertion of such claims against the Company's management.

Although the state rescission statutes generally require the Company to tender to eligible shareholders the consideration paid by such shareholders for the Company's Common Stock, the fact that the Company will provide to certain rescinding shareholders units of limited partnership interest in AGDG in lieu of cash may limit the preclusive effect of the Rescission Offer in Alabama, Montana, Ohio, Oregon, Texas, Utah, Washington, and Wisconsin. Although the Company believes that the Rescission Offer will have preclusive effect, if all of the holders of the 625,637 shares of the Company's Common Stock offered the limited partnership interest in ADGD successfully asserted claims against the Company, the Company could be required to pay these holders approximately \$2,852,449. Even if the Company were successful in defending any securities law claims, the assertion of such claims against the Company additionally would result in costly litigation and significant diversions of effort by the Company's management.

The Securities and Exchange Commission takes the position that liabilities under the federal securities laws are not terminated by making a rescission offer. To the extent that Eligible Offerees affirmatively reject or fail to respond to the Company's Rescission Offer, potential liability of the Company under the 1933 Act may not be completely extinguished. Nevertheless, under those circumstances, the Company will assert that an Eligible Offeree who affirmatively rejects or fails to respond to the Company's Rescission offer has released his claims to recover the purchase price of the securities and that such claims further are barred by applicable statutes of limitation. If the affirmative rejection or failure to respond to the Rescission Offer does not act as a release of claims, each Eligible Offeree who affirmatively rejects or fails to respond to the Rescission Offer would retain any rights or claims such Eligible Offeree may have under the federal securities laws, subject to the statute of limitations with respect to such rights and claims. In general, for a claim based on violations of the registration provisions of the federal securities laws, such a claim must be brought within one year after discovery of the violation upon which the claim is based, provided that, in no event may such claims be brought more than three years after the occurrence of the

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violation. The Company accordingly believes that the applicable statute of limitations has run with respect to such claims. Notwithstanding the foregoing,

if all holders of the 1,292,973 shares subject to the Rescission Offer successfully asserted claims against the Company, the Company would be required to pay these holders approximately \$3,121,965, plus approximately 568.67 units of limited partnership interest in AGDG, plus statutory interest. Even if the Company were successful in defending any securities law claims, the assertion of such claims against the Company additionally could result in costly litigation and diversions of effort by the Company's management. In addition, the Rescission Offer will not prevent the Securities and Exchange Commission from pursuing enforcement action against the Company with respect to any violations of the federal securities laws that may have occurred.

In addition, the rescission offer is not being made to holders of 22,021 shares of the Company's Common Stock who reside in Florida, the laws of which do not permit rescission offerings to cure omissions in securities offering documents. These holders of 22,021 shares of Common Stock originally purchased such shares from the Company at prices ranging from \$4.56 to \$4.95 per share or through the exchange of one unit of limited partnership interest in the Anti-Gene Development Group. There can be no assurance that claims asserting violations of federal or state securities laws will not be asserted by any of these shareholders against the Company or that certain holders will not prevail against the Company in the assertion of such claims, thereby compelling the Company to repurchase their shares. If all of the holders of the 22,021 shares successfully asserted claims against the Company, the Company would be required to pay these holders approximately \$100,000, plus approximately one unit of limited partnership interest in Anti-Gene Development Group, plus approximately \$44,000 in statutory interest. The rescission offer is not being made to holders of 192,603 shares of the Company's Common Stock who reside in the states of California and Nevada because the Company believes that its potential liability to these shareholders has been eliminated by the running of applicable statutes of limitation. There can be no assurance, however, that claims asserting violations of federal or state securities laws will not be asserted by any of those shareholders or that certain holders will not prevail against the Company in the assertion of such claims, compelling the Company to repurchase their shares. If all of the holders of the 192,603 shares successfully asserted claims against the Company, the Company would be required to pay these holders approximately \$218,450, plus approximately 54 units of limited partnership interest in the Anti-Gene Development Group, plus approximately \$193,000 in statutory interest. Even if the Company were successful in defending any securities laws claims, the assertion of such claims against the Company additionally could result in costly litigation and significant diversions of effort by the Company's management.

SECURITIES LITIGATION. Although the Company believes that its potential liability under state securities laws for the sale of securities with inadequate disclosure will be effectively eliminated by the Rescission Offering and the running of applicable statutes of limitations, and that its potential liability under federal securities laws has been effectively eliminated by the running of applicable statutes of limitations, there can be no assurance that claims asserting violations of state or federal securities laws based on the facts underlying the Rescission Offer will not be asserted. A successful claim brought against the Company could have a material adverse effect on the Company's business, financial condition and results of operation. Even unsuccessful claims could result in costly litigation and significant diversions of effort by the Company's management.

DEVELOPMENT STAGE COMPANY; HISTORY OF OPERATING LOSSES. The Company is a development stage biotechnology company. Since its inception in 1980 through March 31, 1997, the Company had incurred losses of \$13,018,179, substantially all of which resulted from expenditures related to research and development and general and administrative expenses. The Company has not generated any material revenues from product sales to date, and there can be no assurance that material revenues from product sales will ever be achieved. Moreover, even if the Company does realize revenues from product sales, the Company nevertheless expects to incur significant operating losses over the next several years. The financial statements accompanying this Prospectus 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 the completion of product development of its antisense and/or drug delivery products, obtaining regulatory approvals for such products and bringing several of these products to market. 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. See "Selected Financial Data" and "Management's Discussion and Analysis of Results of Operations and Financial Condition."

TECHNOLOGICAL UNCERTAINTY; EARLY STAGE OF PRODUCT DEVELOPMENT; NO ASSURANCE OF REGULATORY APPROVALS. The Company's proposed products are in the pre-clinical stage of development and will require significant further research, development, clinical testing and regulatory clearances. The Company has no products available for sale other than research reagents and does not expect to have any products resulting from its research efforts commercially available for at least several years. None of the Company's proposed products has been tested in humans, nor has the Company filed an Investigational New Drug Application ("IND") with the United States Food and Drug Administration ("FDA") on any of its products currently under research and development. The Company's proposed products are subject to the risks of failure inherent in the development of products based on innovative technologies. These risks include the possibilities that some or all of the proposed products could be found to be ineffective or toxic, or otherwise fail to receive necessary regulatory clearances; that the proposed products, although effective, will be uneconomical to manufacture or market; that third parties may now or in the future hold proprietary rights that preclude the Company from marketing its products; or that third parties will develop and market a superior or equivalent products. Accordingly, the Company is unable to predict whether its research and development activities will result in any commercially viable products or applications. Furthermore, due to the extended testing and regulatory review process required before marketing clearance can be obtained, the Company does not expect to be able to commercialize any therapeutic drug for at least several years, either directly or through any potential corporate partners or licensees. Although the Company and others have demonstrated the effectiveness of antisense compounds in living cells and, in some cases, in animal models, none of the Company's proposed products has been tested in humans and there can be no assurance that the Company's proposed products will prove to be safe or effective in humans or will receive the regulatory approvals that are required for commercial sale.

NEED FOR ADDITIONAL FUNDING; UNCERTAINTY OF ACCESS TO CAPITAL. The Company will require substantial funds for further development of its potential products and to commercialize any products that may be developed. The Company's capital requirements depend on numerous factors, including the progress of its research and development programs, the progress of pre-clinical and clinical testing, the time and cost involved in obtaining regulatory approvals, the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights, competing technological and market developments and the ability of the Company to establish collaborative arrangements. The Company has no current anticipated sources of funding beyond the proceeds of the proposed Unit Offering. There can be no assurance that the Company will successfully complete the proposed Unit Offering on terms and conditions acceptable to the Company. The Company believes that its existing capital resources, including the estimated net proceeds of that offering, will be sufficient to satisfy its current and projected funding requirements for at least 24 months from the date of this Prospectus. The Company anticipates that after 24 months, it will require substantial additional capital. Moreover, if the Company experiences unanticipated cash requirements during the next 24 months, including without limitation the tender to the Company of a significant number of shares of its Common Stock in connection with this rescission offering, the Company could require additional capital to fund its operations, continue research and development programs and to continue the pre-clinical and clinical testing of

its potential products and to commercialize any products that may be developed. The Company may seek such additional funding through public or private financings, collaborative arrangements, or other arrangements with third parties. There can be no assurance that additional funds will be available on acceptable terms, if at all. The Company may receive additional funds upon the

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exercise from time to time of the warrants to be sold in its unit offering and other outstanding warrants and stock options, but there can be no assurance that any such warrants or stock options will be exercised or that the amounts received will be sufficient for the Company's purposes. If additional funds are raised by issuing equity securities, further substantial dilution to existing shareholders may result. If adequate funds are not available, the Company may be required to delay, scale back or eliminate one or more of its development programs, or to obtain funds by entering into arrangements with collaborative partners or others that may require the Company to relinquish rights to certain of its products or technologies that the Company would not otherwise relinquish. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

UNCERTAINTY OF NOTE VALUE AND PAYMENT. The Company has been unprofitable since its inception and has received no material revenues from the sale of products or other sources. The Company does not expect material revenues in the near term. The proceeds of the Company's proposed Unit Offering are the only source of capital potentially available in the near term to the Company, other than its existing cash and cash equivalents. There can be no assurance that the proposed Unit Offering will be successfully undertaken by the Company. Even if successful, although the Company's management enjoys broad discretion with respect to the use of proceeds from the Unit Offering, there can be no assurance that proceeds will be applied to the payment of the Notes or that any proceeds will be available therefor upon the maturity of the Notes. Moreover, based on the Company's current operating plan, if the Company experiences unanticipated cash requirements during the next 24 months, including without limitation cash required to pay holders of a significant number of shares of its Common Stock in connection with the rescission offering, the Company could require significant additional capital to fund operations, continue research and development programs, pre-clinical and clinical testing of its potential antisense and drug delivery compounds, commercialize any products that may be developed and make payments on the Notes. There can be no assurance that, however, that additional funds will be available, if at all.

Although shares of the Company's Common Stock will be pledged to secured payment of the Notes by the Company, there previously has been no public market for the Company's Common Stock and there can be no assurance an active public market for the Common Stock will be developed or sustained after the Rescission Offer. In addition, even if such a public market does develop, the obligations of the Pledgors to pledge shares are limited to shares held of record by the Pledgors as of the date of this Prospectus and there can be no assurance that the value of the Company's Common Stock on such public market will be at levels so that the shares subject to the pledge will be sufficient to satisfy the obligations of the Company in the event of a default by the Company in the payment of the Notes. Regardless of the sufficiency of the pledged shares, the Pledgors have no personal recourse liability on the Notes.

The Notes are being issued pursuant to an exemption from the Trust Indenture Act of 1939 and the protective provisions of the Act will not apply to holders of the Notes.

LACK OF OPERATING EXPERIENCE. To date, the Company has engaged exclusively in the development of pharmaceutical technology. Although members of the Company's management have experience in biotechnology company operations, the Company has no experience in manufacturing or procuring products in commercial quantities or selling pharmaceutical products and has only limited experience in negotiating, setting up and maintaining strategic relationships, conducting clinical trials and other later-stage phases of the regulatory approval process. There can be no assurance that the Company will successfully engage in any of these activities. See "Management." MANUFACTURING. The Company intends to undertake the manufacture of its products through the clinical development phase. The Company has not previously manufactured pharmaceutical products of any kind nor has it manufactured antisense or drug delivery compounds in commercial quantities. Establishing manufacturing facilities will require the retention of experienced personnel and compliance with complex regulations relating to the manufacture of pharmaceutical products. There is no assurance

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that the Company will be successful in establishing and operating a manufacturing facility. See "Business-- Manufacturing."

DEPENDENCE ON THIRD PARTIES FOR CLINICAL TESTING, MANUFACTURING AND MARKETING. The Company does not have the resources and does not currently intend to conduct later-stage human clinical trials itself or to manufacture all of its proposed products for commercial sale. The Company therefore intends to seek larger pharmaceutical company partners to conduct such activities for most or all of its proposed products and to contract with third parties for the manufacture of its proposed products for commercial sale. In connection with its efforts to secure corporate partners, the Company will seek to retain certain co-marketing rights to certain of its proposed products, so that it may promote such products to selected medical specialists while its corporate partner promotes these products to the general medical market. There can be no assurance that the Company will be able to enter into any such partnering arrangements on this or any other basis. In addition, there can be no assurance that either the Company or its prospective corporate partners can successfully introduce its proposed products, that they will achieve acceptance by patients, health care providers and insurance companies, or that they can be manufactured and marketed at prices that would permit the Company to operate profitably. With respect to the Company's products, the Company may seek to enter into joint venture, sublicense or other marketing arrangements with another party that has an established marketing capability. There can be no assurance that the Company will be able to enter into any such marketing arrangements with third parties, or that such marketing arrangements would be successful. Failure to market its products successfully would have a material adverse effect on the Company's business and results of operations. In addition, the Company has no current joint venture, strategic partnering or other similar agreements with pharmaceutical companies, and there can be no assurance that the Company could negotiate any such arrangements, on an acceptable basis or at all, if it chose to do so. Accordingly, the commercial viability of the Company's proposed products has not been independently evaluated by any independent pharmaceutical company. See "Business--Manufacturing" and "Marketing Strategy."

NEED TO COMPLY WITH GOVERNMENTAL REGULATION AND TO OBTAIN PRODUCT APPROVALS. The testing, manufacturing, labeling, distribution, marketing and advertising of products such as the Company's proposed products and its ongoing research and development activities are subject to extensive regulation by governmental regulatory authorities in the United States and other countries. The FDA and comparable agencies in foreign countries impose substantial requirements on the introduction of new pharmaceutical products through lengthy and detailed clinical testing procedures and other costly and time-consuming compliance procedures. The Company's compounds require substantial clinical trials and FDA review as new drugs. The Company cannot predict with certainty when it might submit its products currently under development for regulatory review. Once the Company submits its potential products for review, there can be no assurance that FDA or other regulatory approvals for any pharmaceutical products developed by the Company will be granted on a timely basis or at all. A delay in obtaining or failure to obtain such approvals would have a material adverse effect on the Company's business and results of operations. Failure to comply with regulatory requirements could subject the Company to regulatory or judicial enforcement actions, including, but not limited to, product recalls or seizures, injunctions, civil penalties, criminal prosecution, refusals to approve new products and withdrawal of existing approvals, as well as potentially enhanced product liability exposure. Sales of the Company's products outside the United States will be subject to regulatory requirements governing clinical trials and marketing approval. These requirements vary widely from

country to country and could delay introduction of the Company's products in those countries. See "Business--Drug Approval Process and Other Government Regulation."

DEPENDENCE ON KEY PERSONNEL. The success of the Company's business will depend to a large extent on the abilities and continued participation of certain key employees, including Drs. Denis Burger, James Summerton, and Dwight Weller, upon each of whom the Company holds key man life insurance. The Company has entered into employment agreements with each of the key employees, which agreements restrict their ability to compete with the Company for a period of two years following termination of their

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employment. The loss of any of these persons or of other key employees could significantly delay the achievement of the Company's planned development objectives. Competition for qualified personnel among pharmaceutical companies is intense, and the loss of key personnel, or the inability to attract and retain the additional, highly skilled personnel required for the expansion of the Company's activities, could have a material adverse effect on the Company's business and results of operations. See "Management."

FORECLOSURE OF PLEDGE; POTENTIAL CHANGE OF CONTROL; ADVERSE EFFECT ON MARKET PRICE. The Company will issue the Notes in lieu of cash to rescinding shareholders residing in Oregon and Colorado if the aggregate Rescission Price of the shares tendered for rescission exceeds \$1,500,000 and the Company's proposed Unit Offering has not been declared effective and has not closed prior to the Expiration Date. Certain officers and directors of the Company, including Drs. Denis Burger, James Summerton and Dwight Weller, have agreed to maintain as security for payment of the Notes sufficient shares of Common Stock of the Company that the aggregate value of such shares equals 120% of the outstanding principal amount of the Notes. The directors and officers own, of record, 3,569,030 shares of the Common Stock of the Company as of the date of this Prospectus, which will represent approximately 40% of the Company's outstanding Common Stock if all Eligible Offerees exercise their right to rescind. The Company's issuance of Notes in connection with the Rescission Offer, together with a significant decline in the market value of the Company's Common Stock, could result in the pledge of a sufficient number of shares to effect a change of control of the Company upon a default by the Company and foreclosure of the pledged shares. The sale of a substantial number of shares of the Company's Common Stock could adversely affect the market price of the Common Stock and the Company's ability to raise capital in the future in the equity markets. There can be no assurance that key personnel will be retained if parties acquire control of the Company through the acquisition of substantial shares as a result of a foreclosure. See "Dependence on Key Personnel."

COMPETITION. Competition in the area of pharmaceutical products is intense. There are many companies, both public and private, including well-known pharmaceutical companies, that are engaged in the development of products for certain of the applications being pursued by the Company. The Company's probable competitors in the antisense and drug delivery fields include Glaxo Ltd. ("Glaxo"), Boehringer Ingelheim Inc. ("Boehringer Ingelheim"), Gilead Sciences Inc. ("Gilead"), Hybridon Inc. ("Hybridon"), ISIS Pharmaceuticals, Inc. ("ISIS"), Lynx Therapeutics Inc. ("Lynx"), Cygnus, Inc. (Cygnus"), Biovail Corporation International ("Biovail"), and Noven Pharmaceuticals, Inc. ("Noven"), among others. Most of these companies have substantially greater financial, research and development, manufacturing and marketing experience, and resources than the Company does and represent substantial long-term competition for the Company. Such companies may succeed in developing pharmaceutical products that are more effective or less costly than any that may be developed by the Company.

Factors affecting competition in the pharmaceutical industry vary depending on the extent to which the competitor is able to achieve a competitive advantage based on patented or proprietary technology. If the Company is able to establish and maintain a significant patent position with respect to its antisense compounds and drug delivery technology, its competition will likely depend primarily on the effectiveness of the products and the number, gravity and severity of unwanted side effects, if any, with its products as compared to alternative products.

The industry in which the Company competes is characterized by extensive research and development efforts and rapid technological progress. Although the Company believes that its patent position may give it a competitive advantage with respect to its proposed antisense compounds and drug delivery products, new developments are expected to continue and there can be no assurance that discoveries by others will not render the Company's potential products noncompetitive. The Company's competitive position also depends on its ability to attract and retain qualified scientific and other personnel, develop effective products, implement development and marketing plans, obtain patent protection, and secure adequate capital resources. See "Business--Competition."

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PATENTS AND PROPRIETARY RIGHTS. The Company believes that its ultimate success will depend in part on the strength of its existing patents and additional patents that it files in the future. The Company owns eleven US patents and nine foreign patents covering various aspects of its NEU-GENES technology, and additional patent applications are pending in the US and Europe, Japan, Australia, and Canada. The Company has filed patent applications covering the basic compositions of matter, methods of synthesis, and medical uses of CYTOPORTER compounds. Although the Company believes that its technology is adequately protected, there is no assurance that any existing or future patents will survive a challenge or will otherwise provide meaningful protection from competition. There is also no assurance that the Company will have the financial resources to provide a vigorous defense of its patent position, if challenged or that the practice of its patented and proprietary technology will not infringe third-party patents. If an actual infringement action were instituted against the Company, there can be no assurance that the Company would have the financial ability to defend the action or that the action would not have an adverse effect on the Company. The Company's success will also depend on its ability to avoid infringement of patent or other proprietary rights of others or its ability to obtain any technology licenses it may require in the future. See "Business--Patent and Proprietary Rights."

RISK OF PRODUCT LIABILITY. Clinical trials or marketing of any of the Company's potential pharmaceutical products may expose the Company to liability claims from the use of these products. The Company currently intends to obtain product liability insurance at the appropriate time; however, there can be no assurance that the Company will be able to obtain or maintain insurance on acceptable terms for its clinical and commercial activities or that such insurance would be sufficient to cover any potential product liability claim or recall. Failure to have sufficient coverage could have a material adverse effect on the Company's business and results of operations.

CONTROL BY EXISTING SHAREHOLDERS. The Company's officers, directors and principal shareholders, and certain of their affiliates, beneficially own 46% of the Company's outstanding Common Stock. If all Eligible Offerees exercise their right to rescind, the Company's officers, directors, and principal shareholders, will beneficially own 52% of the Company's then outstanding Common Stock. Such concentration of ownership may have the effect of delaying or preventing a change in control of the Company. Additionally, these shareholders will have significant influence over major corporate transactions as well as the election of directors of the Company and control over Board decisions. See "Principal Shareholders."

ANTI-TAKEOVER EFFECTS OF CERTAIN CHARTER PROVISIONS AND OREGON LAW. Certain provisions of the Company's Second Restated Articles of Incorporation and Bylaws could discourage potential acquisition proposals, could delay or prevent a change in control of the Company and could make removal of management more difficult. Such provisions could diminish the opportunities for a shareholder to participate in tender offers, including tender offers that are priced above the then-current market value of the Common Stock. The provisions may also inhibit increases in the market price of the Common Stock and Warrants that could result from takeover attempts. For example, the Board of Directors of the Company, without further shareholder approval, may issue up to 2,000,000 shares of

Preferred Stock, in one or more series, with such terms as the Board of Directors may determine, including rights such as voting, dividend and conversion rights which could adversely affect the voting power and other rights of the holders of Common Stock. Preferred Stock thus may be issued quickly with terms calculated to delay or prevent a change in control of the Company or make removal of management more difficult. Additionally, the issuance of Preferred Stock may have the effect of decreasing the market price of the Common Stock. The Oregon Control Share Act and Business Combination Act limit the ability of parties who acquire a significant amount of voting stock to exercise control over the Company. These provisions may have the effect of lengthening the time required for a person to acquire control of the Company through a proxy contest or the election of a majority of the Board of Directors and may deter efforts to obtain control of the Company. Finally, the Company's Board of Directors is divided into two classes, each of which serves for a staggered two-year term, which may make it more difficult for a third party to gain control of the Company's Board of Directors. See "Description of Securities."

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NO PRIOR PUBLIC MARKET. There previously has been no public market for the Company's Common Stock or Warrants. There can be no assurance that an active public market for the Common Stock or Warrants will develop or be sustained after the proposed Unit Offering by the Company or that the Company will successfully complete the Unit Offering. All of the Company's outstanding shares of Common Stock, other than those issued in connection with the Company's Unit Offering, are "restricted securities," which means that such shares are not freely tradeable and may not be offered or sold at any time unless the transaction is registered under the 1933 Act or an exemption from registration is available. A decision not to accept the Rescission Offer will not affect the restricted status of the Common Stock held by any Eligible Offeree. Although the Company intends to apply to the NASDAQ Stock Market's National Market for listing of its Common Stock and warrants issued in connection with the Unit Offering, no assurance can be given that a public market for the Common Stock will develop in the foreseeable future or, should a market develop, that prevailing market prices will exceed those paid by Eligible Offerees for the Common Stock.

ABSENCE OF DIVIDENDS. The Company has never paid cash dividends on its Common Stock and does not anticipate paying cash dividends in the foreseeable future. See "Dividend Policy of the Company."

### DIVIDEND POLICY OF THE COMPANY

The Company has not declared or paid cash dividends on its Common Stock. The Company currently intends to retain all future earnings to fund the operation of its business and, therefore, does not anticipate paying dividends in the foreseeable future. Future cash dividends, if any, will be determined by the Board of Directors.

### CAPITALIZATION OF THE COMPANY

The following table sets forth the capitalization of the Company as of December 31, 1996 (i) on an actual basis, (ii) as adjusted to reflect the receipt and application of the estimated net proceeds from the sale of the 1,500,000 Units offered by the Company at an assumed initial offering price of \$9.00 per Unit, and (iii) as adjusted to give effect to the Rescission Offer; assuming that the interest component maintains a constant proportion of the total Rescission Price.

MARCH 31, 1997 ACTUAL AS ADJUSTED(2) AS ADJUSTED(3) AS ADJUSTED(4)

Common stock subject to rescissionShareholders' equity:	3,121,965	3,121,965	2,229,401	
Preferred stock, \$0.0001 par value: 2,000,000 shares authorized; no shares issued and outstanding, actual and as adjusted(1)				
Common stock, \$0.0001 par value: 50,000,000 shares authorized; 7,486,790 shares issued and outstanding, actual; 8,986,790 shares issued and outstanding, as				
adjusted(2)(3)(4)	749	899	899	899
Additional paid in capital Deficit accumulated during the development	13,220,861	24,828,211	24,828,211	24,828,211
stage	(13,018,179)	(13,018,179)	(13,625,615)	(15,142,837)
Total shareholders' equity	203,431	11,810,391	11,203,495	9,689,273
Total capitalization	\$ 203,431	\$ 11,810,391	\$ 11,203,495	\$ 9,689,273

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(1) Reflects an amendment to the Company's Articles of Incorporation that was effective November 4, 1996, authorizing the issuance of up to 2,000,000 shares of Preferred Stock.

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- (2) Excludes 1,551,261 shares of Common Stock issuable upon exercise of stock options and warrants outstanding as of March 31, 1997, at a weighted average exercise price of \$4.66 per share. Also excludes 209,506 shares reserved for future issuance pursuant to the Company's Stock Incentive Plan. See "Management--Stock Incentive Plan" and Note 3 of Notes to Financial Statements.
- (3) Assumes that shares with an aggregate Rescission Price of \$1,500,000 are tendered for rescission, which represents the cash portion of the Company's potential payments under the Rescission Offer.
- (4) Assumes that shares with an aggregate Rescission Price of \$5,246,623 are tendered for rescission, the first \$1.5 million of which is paid in cash and the next \$3,746,623 is paid through the issuance of the Company's one and one-half year to three-year 9% notes.

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#### SELECTED FINANCIAL DATA OF THE COMPANY

The Selected Financial Data set forth below for the years ended December 31, 1995 and 1996, and for the period from July 22, 1980 (inception) through December 31, 1996, and with respect to the Balance Sheet Data at December 31, 1995 and 1996 are derived from, and are qualified by reference to, the audited Financial Statements and related Notes thereto included elsewhere in this Prospectus and should be read in conjunction with those audited Financial Statements and Notes thereto. The Statements of Operations Data for the three month periods ended March 31, 1996 and 1997 and for the period from July 22, 1980 (inception) through March 31, 1997, and the Balance Sheet Data at March 31, 1997 have been derived from unaudited financial statements included elsewhere herein, and reflect in management's opinion, all adjustments, consisting only of normal recurring adjustments necessary for a fair presentaion of the results of operations for such periods. Results of operations for any interim period are not necessarily indicative of results to be expected for the full fiscal year. The Selected Financial Data set forth below are qualified by reference to, and should be read in conjunction with, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Financial Statements and Notes thereto included elsewhere in this Prospectus.

	VE3.0		PERIOD FROM		D MARCH 31,	JULY 22, 1980 (INCEPTION) TO MARCH 31,
	DECEM	BER 31,	JULY 22, 1980	1996	1997	1997
	1995	1996	(INCEPTION THROUGH DECEMBER 31, 1996		(UNAUDITED)	(UNAUDITED)
STATEMENTS OF OPERATIONS DATA: Revenues, from grants and research						
contracts	\$ 82,500	\$ 27,227	\$ 669,497	\$	\$	\$ 689,497
Operating expenses: Research and development General and administrative	609,723	613,811	9,007,811 4,549,583	75,321	170,028	4,719,610
Total operating expenses	2,707,519	2,343,366	13,557,394	424,886	621,751	14,182,907
Other income	68,133	228,776	446,176	170,639	29,055	475,231
Net loss Net loss per share(1)				\$ (254,247) \$ (0.04)		
Shares used in per share calculation(1)	982,459	8,233,548		7,109,810	8,233,548	

	DE	CEMBER 21	MARCH 31, 1997				
		DECEMBER 31, 1996		ACTUAL	AS ADJUSTED(2)	AS ADJUSTED(3)	AS ADJUSTED(4)
BALANCE SHEET DATA							
Working capital	Ş	2,738,677	\$	1,959,519	\$ 13,567,019	\$ 12,067,019	\$ 12,067,019
Total assets		4,248,899		3,699,483	15,306,983	13,806,983	13,806,983
Common stock subject to rescission		3,121,965		3,121,965	3,121,965	2,229,401	
Deficit accumulated during the development							
stage		(12,425,483)		(13,018,179)	(13,018,179)	(13,625,615)	(15,142,837)
Total shareholders' equity (deficit)		796,127		203,431	11,810,931	11,203,495	9,686,273

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- (1) See Note 2 of Notes to Financial Statements for an explanation of the determination of the number of shares used in computing net loss per share.
- (2) Adjusted to give effect to the application of the estimated net proceeds of the Company's Unit Offering based upon an assumed initial public offering price of \$9.00 per Unit. See "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."
- (3) Assumes that shares with an aggregate Rescission Price of \$1.5 million are tendered for rescission, which represents the cash portion of the Company's potential payments under the rescission offer.
- (4) Assumes that shares with an aggregate Rescission Price of \$5,246,623 are tendered for rescission, the first \$1.5 million of which is paid in cash and the next \$3,746,623 is paid through the issuance of the Company's one and one-half year to three-year 9% notes.

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

### OVERVIEW

From its inception in July 1980, the Company has devoted its resources primarily to fund its research and development efforts. The Company has been unprofitable since inception and, other than limited interest and grant revenue, has had no material revenues from the sale of products or other sources, and does not expect material revenues for at least the next 12 months. The Company expects to continue to incur losses for the foreseeable future as it expands its research and development efforts. As of March 31, 1997 the Company's accumulated deficit was \$13,018,179.

The Company expects to use approximately \$5 million of the net proceeds of the Unit Offering for pre-clinical development and the clinical trial phases of the Company's near-term therapeutic programs. The Company intends to increase its research staff as it prepares to initiate pre-clinical studies and file INDs for RESTEN-NG and CYCLOSPORIN-CP. The Company's administrative staff will be supplemented as needed to support the research and development activities, to assure compliance with governmental regulatory requirements, and to develop and establish strategic pharmaceutical alliances.

#### RESULTS OF OPERATIONS

THREE MONTHS ENDED MARCH 31, 1996 COMPARED WITH THREE MONTHS ENDED MARCH 31, 1997. Operating expenses increased from \$424,886 for the three-month period ended March 31, 1996 to \$621,751 for the three-month period ended March 31, 1997 due to increases in research and development staffing and expenses associated with outside collaborations and preclinical testing of the Company's technologies. Other income decreased from \$170,639 for the three month period ended March 31, 1997 due primarily to the sale of short-term investments in the first quarter of 1996.

YEAR ENDED DECEMBER 31, 1995 COMPARED WITH YEAR ENDED DECEMBER 31, 1996. The Company had revenues from research contracts of \$82,500 and \$27,227 for the years ended December 31, 1995 and 1996 respectively. Revenues for both time periods were derived from research collaborations with outside organizations, and the decrease between the current and prior year periods was due primarily to the completion of a collaborative research program in 1996. Operating expenses were \$2,707,519 in 1995 and \$2,343,365 in 1996. The decrease in operating expenses was due to a reduction in staff and other efficiencies that resulted from a shift in focus of the Company's research to pre-clinical development. Other income increased from \$68,133 in 1995, to \$228,776 in 1996, primarily due to the sale of short term investments and increased interest income in 1996.

#### LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through private equity sales totaling \$16,340,342 and grants and contract research funding of \$689,497 from various sources. The Company's cash and cash equivalents were \$2,305,351 at March 31, 1997, compared with \$544,962 at March 31, 1996. The increase of \$1,760,389 was due to net proceeds from the sale of the Company's Common Stock of approximately \$4,031,532 in late 1996 offset by the use of approximately \$2,271,143 for operations in late 1996 and early 1997.

The Company's future expenditures and capital requirements will depend on numerous factors, including without limitation, the progress of its research and development programs, the progress of its preclinical 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, the ability of the Company to establish collaborative arrangements and the terms of any such arrangements, and the costs associated with commercialization of

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its products. The Company's cash requirements are expected to continue to increase significantly each year as it expands its activities and operations. There can be no assurance, however, that the Company will ever be able to

generate product revenues or achieve or sustain profitability. See "Risk Factors."

The proceeds of this offering are the only source of capital currently available to the Company, other than existing cash and cash equivalents. See "Use of Proceeds." The Company believes that the estimated net proceeds from this offering and existing cash and cash equivalents will satisfy its budgeted cash requirements for at least the next 24 months based upon the Company's current operating plan. This plan shows that at the end of the 24-month period, the Company will require substantial additional capital. Moreover, if the Company experiences unanticipated cash requirements during the 24-month period, including without limitation, cash required to pay the holders of a significant number of shares of Common Stock in connection with the Company's proposed rescission offering, the Company could require additional capital to fund operations, continue research and development programs and pre-clinical and clinical testing of its potential antisense and drug delivery products and commercialize any products that may be developed. See "Risk Factors--Potential Liability Arising From Rescission Rights of Certain Shareholders." The Company may seek such additional funding through public or private financings or collaborative or other arrangements with third parties. There can be no assurance, however, that additional funds will be available on acceptable terms, if at all. See "Risk Factors--Additional Financing Requirements."

The Company anticipates that it will satisfy the cash requirements of the Rescission Offer from current cash and cash equivalents. Potential continuing liability from the issuance of Notes related to the Rescission Offer could result in substantial ongoing interest expense and adversely affect the Company's access to capital markets. For example, the Company's issuance of Notes would result in additional annual interest expense of approximately \$90,000 for each \$1,000,000 of Notes issued, up to a maximum of approximately \$300,000 if all Eligible Offerees exercise their right to rescind. All such potential increases in annual interest expense could have the effect of increasing the Company's net loss. Additionally, the potential additional debt would make it more difficult for the Company to satisfy minimum net worth standards required to maintain the Company's Common Stock listing on the Nasdag National Market System. Finally, the potential additional debt could adversely affect the Company's creditworthiness in the view of potential lenders and investors, making it more difficult and expensive for the Company to obtain needed financing.

### BUSINESS OF THE COMPANY

#### GENERAL OVERVIEW

ANTIVIRALS is a pioneer in the field of the gene-inactivating technology referred to as ANTISENSE and has developed a patented class of antisense compounds which may be useful in the treatment of a wide range of human diseases. The Company also has developed new drug delivery technology which may be useful with many FDA-approved drugs as well as with its antisense compounds. The Company's drug development program has two areas of near-term focus:

- NEU-GENE antisense compounds for selected applications, and
- CYTOPORTER drug delivery engines for enhanced delivery of FDA-approved drugs with delivery problems.

The Company's long-term product development program combines its NEU-GENE and CYTOPORTER technologies to produce combination drugs with potential applications for many diseases. The Company has filed patent applications covering the basic compositions of matter, methods of synthesis and therapeutic uses of NEU-GENES in the United States, Canada, Europe, Australia and Japan. Eleven patents have issued in the United States and nine others have been granted by the European Patent Office, and in Japan, Canada and Australia. Additional patent applications, covering the Company's basic compounds have been filed.

The first application of the Company's antisense technology is designed to treat restenosis, a cardiovascular disease. The Company is currently in pre-clinical development with this compound and expects to file an IND to begin clinical trials in 1998. The Company's first planned drug delivery products combine its CYTOPORTER delivery engine with two FDA-approved drugs that have delivery problems. These drugs, cyclosporin and paclitaxel (Taxol-TM-), will both be off patent by late 1997 and could have much wider use if their delivery problems are reduced. The Company expects to file an IND to begin clinical trials with its enhanced form of cyclosporin and to initiate pre-clinical studies with its enhanced form of paclitaxel in 1998. See "Drug Approval Process and Other Government Regulations."

DRUG DESIGN AND DEVELOPMENT. Most conventional drugs are chemicals designed to induce or inhibit the function of a target protein molecule with as few side effects as possible. Conventional drugs are not available for many diseases due to their low level of selectivity for the specific disease target or because they are difficult to deliver to their targets. These two issues, lack of selectivity and poor delivery, may contribute to poor efficacy, unwanted side effects or high toxicity, even at suboptimal dosages. Moreover, the development of conventional drugs is usually time consuming and expensive, since thousands of compounds must be produced and analyzed to find one with an acceptable balance between efficacy and toxicity. Safe and effective therapeutics for viral and host diseases have been particularly difficult to develop because these diseases use the patient's own cellular machinery and therefore provide few specific targets for therapeutic intervention that will not prove toxic to the patient.

Antisense technology has the potential to provide safe and effective treatment for a wide range of diseases, including viral and host diseases. This new approach uses synthetic compounds, or polymers, designed to inactivate selected genetic sequences, thereby halting the disease process. Targeting these genetic sequences provides the selectivity that is not available in conventional drug development which typically targets proteins directly. The antisense approach inhibits at the genetic level the mechanisms which underlie the production of disease-producing proteins.

To reach their therapeutic targets, many drugs must cross tissue and cellular barriers. Drugs that have an intracellular site of action must cross the lipid barrier of cellular membranes to move from the aqueous environment in blood into the interior of target cells. Therefore, these drugs must achieve solubility in both water and lipids. Since few compounds have these solubility characteristics, many drug candidates are a compromise between inherent solubility and effective delivery. This trade-off greatly reduces efficacy and may significantly heighten toxicity of many drug candidates as well as many FDA-approved drugs.

The Company has developed two distinct technologies designed to address the critical issues in drug development. The Company's NEU-GENE antisense technology addresses the issue of drug selectivity, and its CYTOPORTER drug delivery technology addresses delivery problems with both FDA-approved drugs and antisense compounds. The characteristics of the patented structure of the Company's NEU-GENE compounds distinguish its antisense technology from competing technologies and provide the selectivity for a single disease target that is the hallmark of all antisense technology. The Company's molecular engine, CYTOPORTER, is designed to transport certain drugs with poor delivery characteristics across the lipid barrier of cellular membranes into the interior of cells to reach their targets.

#### NEAR-TERM PRODUCT DEVELOPMENT SUMMARY

The first application of the Company's antisense technology is designed to treat restenosis. The Company's first planned drug delivery products combine its CYTOPORTER delivery engine with two

FDA-approved drugs, paclitaxel (Taxol) and cyclosporin, each of which the Company believes could have much broader usage if its delivery problems were reduced.

COMPOUND	DRUG	POTENTIAL INDICATION	DEVELOPMENT STATUS
AVI-2221 NEU-GENE	Resten-NG	Restenosis	Pre-clinical studies in 1997 and IND filing expected in 1998
AVI-2401 CYTOPORTER	Cyclosporin-CP	Transplantation	Pre-clinical studies in 1997 and IND filing expected in 1998
AVI-2301 CYTOPORTER	Paclitaxel-CP	Cancer	Pre-clinical studies expected in 1998

#### ANTISENSE--NEU-GENE

### TECHNICAL OVERVIEW

GENETIC STRUCTURE AND FUNCTION. All life forms contain genetic information in molecules called DNA and RNA which comprise the operating instructions for all life processes. The specific instructions are called genes, which are long chains or strands of the four genetic bases: adenine, cytosine, guanine and thymine, represented by the letters, A, C, G and T, respectively. The molecular structures of these letters are complementary, such that A pairs with T, and C pairs with G. Consequently, each genetic strand has the unique ability to bind specifically to its complementary strand to form a duplex.

The information encoded in the DNA by its sequence of genetic letters is used to make proteins. To accomplish this, one strand (called the template strand) of the duplex DNA is copied to make a new complementary strand, referred to as messenger RNA. This messenger RNA is referred to as the SENSE strand because it carries the information used to assemble a specific protein. See "Figure 1" below. An ANTISENSE compound is a synthetic strand that is complementary to a small portion of the messenger RNA. Antisense compounds pair with their complementary messenger RNA sense strand to form a duplex, preventing the message from initiating protein assembly. See "Figure 2" below.

#### FIGURE 1--GENETIC FUNCTION

#### [Genetic Function Diagram]

GENE-TARGETED THERAPEUTICS. 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. New techniques in molecular biology have 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 letters. Using modern methods of chemical synthesis, a genetic compound can be prepared that is complementary to a critical SENSE sequence in a pathogen or pathogenic process. When this complementary antisense compound binds tightly to the disease-causing sequence, the selected protein is inhibited, and thus the pathogen or pathogenic process is disabled. See "Figure 2" below.

# FIGURE 2--ANTISENSE INHIBITION OF GENETIC FUNCTION

#### [Antisense Inhibition Diagram]

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 (A, C, G, or T) that pairs with its corresponding letter in the genetic 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. The Company is distinguished from all other antisense companies by the characteristics of its patented antisense BACKBONE. The subunits which carry the genetic letters on the Company's BACKBONE are synthetic products rather than modified natural materials. In addition, the linkages used to string the subunits together carry no charge in the Company's BACKBONE. The Company believes these differences may provide pharmaceutical advantages that are critical for antisense drug development to meet the challenges of broad clinical utility.

FIRST-GENERATION COMPOUNDS. The first gene-inactivating compounds had BACKBONES composed of natural genetic materials and linkages. Development of these compounds began in the late 1960s. As work continued in this new field, it became increasingly clear that there were significant problems with these structures. 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.

SECOND-GENERATION COMPOUNDS. To overcome these problems of degradation and permeability, several research groups developed modified BACKBONES in the late 1970s 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 and Hybridon, use natural DNA subunits linked together by a sulfur-containing, charged linkage.

The Company was also extensively involved in developing second-generation BACKBONES through the mid-1980s. After extensive investigation, however, the Company concluded that even after optimization, these second-generation compounds might lack the combination of properties desirable for broad clinical utility. For this reason, the Company abandoned development of second-generation BACKBONES in the mid-1980s and started development of third-generation BACKBONES designed to address these drawbacks. Today, in spite of extensive progress in the field, the Company believes that there remain serious limitations to second-generation compounds due to problems with the stability, specificity, cost effectiveness, and delivery of these compounds.

NEU-GENE Third-generation Technology. By the mid-1980s, the limitations of the second-generation compounds led the Company to pursue the development of antisense technology with improved pharmaceutical properties which could be produced in a cost-effective manner. This effort culminated in the Company's development of a new class of compounds having a BACKBONE of synthetic subunits carrying each genetic letter, with each subunit linked together by a patented uncharged linkage group. The synthetic subunits and linkages are not found in nature, but rather were designed and synthesized to meet specific pharmaceutical parameters. These patented third-generation agents, known as NEU-GENE compounds, display advantageous pharmaceutical properties (stability, neutral charge, high binding affinity and specificity). Moreover, they are made from less expensive, more abundant materials, and the Company believes that they will cost significantly less to produce than second-generation compounds.

The Company and others have shown in cell culture and animal studies that NEU-GENE compounds inhibit targeted genetic sequences. With these scientific benchmarks in place, the Company's objective is to develop its third-generation antisense compounds into effective and affordable therapeutics for major infectious and host diseases.

PHARMACEUTICAL PROPERTIES OF ANTISENSE COMPOUNDS. If antisense compounds are to become widely applicable pharmaceutical compounds, the following challenges must be addressed.

- Stability: resistance to enzymatic degradation both in blood and inside cells
- Efficacy: ability to inhibit expression of the target gene
- Specificity: binding restricted to the selected target, reducing toxicity
- Cost effectiveness: manufacturing efficiency which allows a broad range of applications

- Delivery: ability to cross tissue and cellular barriers in order to reach targeted genetic sequences

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The Company's core technology differentiates it from others developing gene-inactivating compounds. The Company believes its principal competitive advantage in the antisense area is the chemical structure of the NEU-GENE BACKBONE which was developed to address all of the above parameters.

STABILITY. Biological stability is principally determined by the degree of resistance to enzymatic degradation. Because the NEU-GENE BACKBONE is a unique synthetic structure, the Company believes that there are no enzymes found in man to degrade it. The Company has conducted studies indicating that these agents are stable in blood and are stable to a broad range of degradative enzymes.

EFFICACY AND SPECIFICITY. Efficacy refers to the efficiency with which the antisense compounds block selected protein production. In a direct comparison with second-generation compounds conducted by the Company, its NEU-GENE compounds exhibited significantly better binding to both RNA and DNA, as well as substantially greater inhibition of the activity of targeted genetic sequences. Specificity can be assessed by comparing target inactivation of perfectly paired sequences and mispaired sequences. In the Company's direct comparison studies, NEU-GENE compounds exhibited substantially greater specificity than all other BACKBONE types tested.

COST EFFECTIVENESS. The difficulty of synthesizing antisense compounds has been a concern in the field since its inception. The cost of producing gene-inactivating polymers depends to a considerable extent on the cost of the subunits from which they are constructed. The Company believes that because of abundant, low-cost materials, simpler production techniques and higher yields, the subunits used for NEU-GENE synthesis will cost substantially less than those used in the synthesis of second-generation BACKBONES. After the genetic subunits are prepared, they must be assembled in a defined order to form the desired gene-inactivating polymer. The Company believes that the total cost of production of commercial quantities of NEU-GENES will be significantly less than that of gene-inactivating compounds prepared from natural or modified subunits by competitors.

DELIVERY. To reach their targets, antisense compounds must cross tissue and cellular barriers, including cellular and nuclear membranes. Preliminary research indicates that antisense compounds, including those of the Company, may face delivery problems when addressing many diseases. Accordingly, the Company has devoted substantial research effort to develop technology for delivering NEU-GENES to the interior of the cell. See "Drug Delivery--CYTOPORTER."

# NEAR-TERM ANTISENSE PRODUCT DEVELOPMENT--RESTENOSIS

The first application of the Company's antisense technology is designed to treat restenosis, a cardiovascular disease. Restenosis results from the failure of balloon angioplasty due to a rapid growth of smooth muscle cells leading to a second blockage of a coronary artery. There are approximately 500,000 balloon angioplasties done in the United States each year with a failure rate of approximately 30% - 40%. During angioplasty, small metal supports, known as stents, may be placed at the site of blockage to keep the artery open. Recent studies suggest that stent placement may reduce the incidence of restenosis to approximately 20%. Although balloon angioplasty may avoid expensive bypass surgery if successful, restenosis may ultimately require the patient to undergo bypass surgery. The Company has selected restenosis as its first antisense product opportunity because the Company believes that delivery of NEU-GENE compounds is achievable in this disease setting, NEU-GENE compounds have the combination of other properties to address this disease and because the restenosis market is estimated at more than \$1 billion annually in the United States.

When a patient has a blocked coronary artery, a procedure called balloon angioplasty is frequently used to remove the blockage. In this procedure a balloon catheter is inserted in the artery up to the blockage and the balloon is inflated to open the artery. The balloon increases the diameter of the channel through the blocked portion of the artery. During this process, vascular cells, including smooth muscle cells which underlie the blockage, may be damaged. This process may result in rapid cell division leading to

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closure of the artery a second time. Restenosis occurs in 30% - 40% of these procedures when stents are not placed and cannot be predicted from patient to patient. Even when stents are placed, the incidence of restenosis is significant. The precise mechanisms which cause this reaction are not known. However, scientific evidence suggests that, if the smooth muscle cells can be prevented from dividing for a few days until the integrity of the artery is reestablished, restenosis could be prevented in a significant number of cases. Although there are a few new clinical approaches that attempt to prevent restenosis, none is very effective and all have significant risks associated with them.

There is scientific evidence that antisense compounds readily enter scrape-damaged artery cells and the Company has demonstrated that its NEU-GENE antisense compounds readily enter and function in scraped cells in the laboratory. The Company has selected target genetic sequences, has produced drug candidates, and has demonstrated that its NEU-GENE compounds inhibit cell division in laboratory models for this disease. Compound AVI-2221, Resten-NG, is now in pre-clinical development for restenosis, and the Company expects to file an IND to begin clinical trials in 1997. See "Drug Approval Process and Other Government Regulations." The Company intends to co-develop its NEU-GENE restenosis compound with a pharmaceutical partner. There can be no assurance, however, that the Company will be able to attract any partnerships or establish any such relationship on favorable terms, or at all.

#### DRUG DELIVERY--CYTOPORTER

Since NEU-GENES are large molecules that do not readily make their way into cells, the Company has been developing a delivery mechanism that would allow NEU-GENES, as well as other drugs, to be transported directly into their intercellular site of action. The Company has developed and has filed a patent for a molecular engine, called CYTOPORTER, to transport drugs across the lipid layers of cellular and endosomal membranes into the interior of cells. This engine is powered by the acidic differential (pH gradient) across the endosomal membrane, does not disrupt the membrane, and is disassembled into harmless byproducts after carrying out its transport function.

#### TECHNICAL OVERVIEW

The body has protective barriers that shield it from penetration by foreign agents. Two of these barriers, cell membranes and the outermost layer of the skin, are composed of lipid layers (fat-like substances). The lipid composition of these barriers prevents aqueous or water-soluble agents from the environment or in the blood from penetrating into the interior of cells and interfering with critical cellular functions. These lipid layers are the principal barriers to effective drug delivery for many drugs that have an intracellular site of action.

For optimal delivery, a drug should penetrate readily into both the aqueous compartments of the body (body fluids and the interior of cells) and into the lipid layers which enclose those compartments. This is rarely achieved because when lipid solubility is increased, water solubility is decreased, and vice versa. In the past, to achieve delivery, the structure of a selected drug candidate was chemically adjusted to produce a compromise in the solubility profile (e.g., less than ideal water solubility in order to achieve some level of lipid solubility). This trade-off has been successful with many drugs, but markedly less successful for many others. Currently, a significant number of all FDA-approved drugs have delivery problems, and many others never make it into clinical development due to delivery problems.

Small substances of low polarity can usually pass directly through the lipid layers of cell membranes. This appears to be the principal route of entry for

most drugs without delivery problems. In contrast, substances with greater polarity and/or larger molecular size generally enter cells by being taken up and sequestered in a closed cellular compartment, or endosome, in a process called endocytosis. In this process, the interior of the endosome is acidified and the contents are exposed to degradative enzymes resulting in their breakdown. This is a natural cellular mechanism that protects the interior of the cell from exposure to foreign material.

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Drugs that are polar in nature or are of a larger molecular size must cross the lipid membrane of the endosome before being degraded in order to gain entry into the interior of the cell. Many drugs in this category fail to achieve entry rapidly enough to be practical for pharmaceutical purposes.

CYTOPORTER DRUG DELIVERY SOLUTION. The Company believes it has developed an effective drug delivery engine, called CYTOPORTER, to facilitate the transport of polar and larger size drugs across the lipid barriers of the skin, cell membranes, and endosomes into the interior of cells at a rate that is practical to achieve pharmaceutical results. When drugs in this category are taken up by cells, they are sequestered within an endosome surrounded by a lipid barrier. The Company's CYTOPORTER drug delivery engine is designed to transport these problem drugs from the endosome into the interior of cells without disruption of the lipid membrane that traps them. CYTOPORTER is a synthetic peptide containing specifically positioned acidic groups along its structure. In neutral conditions, CYTOPORTER exists as a water-soluble random form with its acidic groups exposed and hydrated. On acidification in the endosome, CYTOPORTER undergoes a transition to a lipid-soluble, needle-like form where the acidic groups are masked by associating as mated pairs, and other polar groups are shielded from the environment. As the engine becomes lipid soluble it penetrates across the surrounding lipid membrane. As it enters into the interior of the cell, it encounters a neutral environment which induces a transition back to a water-soluble form resulting in movement of the engine and drug into the interior of the cell. See "Figure 3" below.

### FIGURE 3--CYTOPORTER DRUG DELIVERY AT THE CELLULAR LEVEL

## [Drug Delivery Diagram]

CYTOPORTER DRUG TRANSPORT MECHANISM. In preparation for enhanced drug delivery, the selected drug is chemically linked to the CYTOPORTER engine. This process will be unique for each drug and must take into account each drug's mode and site of action. Several steps are involved in the transport of the selected drug from the blood or body fluids across lipid barriers into the interior of target cells. After the drug is taken up by endocytosis, the endosome is acidified as the cell attempts to degrade its contents. As this acidification takes place, the engine converts from a water-soluble random form into a lipophilic, needle-like form. As the engine converts to its lipophilic form, it is PUSHED into the lipid membrane. Because the engine is longer than the membrane is thick, continued entry pushes the leading end of the engine into the interior of the cell. As the engine enters the neutral environment of the interior of the cell, it reverts automatically to its random, water-soluble form. This provides the motive force to PULL more of the engine across the membrane. Finally, ionization and solvation of the engine as it enters the interior pull the attached drug into the interior of the cell. The interior of the cell contains enzymes which rapidly break down the engine into harmless by-products. This is a natural process that results in freeing the drug to react with its intracellular target.

The Company believes that its CYTOPORTER delivery engine can be chemically adjusted to accommodate a range of delivery challenges. The transition from water to lipid solubility can be manipulated to afford a wide range of transitions to accommodate various endosome characteristics. Moreover, the Company believes that its CYTOPORTER can be adjusted to accommodate various drug loads from modest polar drugs to the more challenging large molecular size polymers like uncharged antisense compounds.

CYTOPORTER APPLICATIONS. The Company believes its CYTOPORTER molecular

engines may provide improved pharmaceutical properties for a wide variety of drugs, including:

- Improved aqueous solubility for lipophilic drugs, such as Taxol.
- Improved transport of peptides from endosomes into the interior of cells (e.g., cyclosporin) and transport of antisense polymers, particularly non-charged types such as NEU-GENES.
- Protection of polymer drugs from degradation by virtue of transport out of endosomes prior to the start of the degradation process.

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- Improved transport of drugs into cells of the brain by specialized CYTOPORTER engines designed to provide both transport across the blood/brain barrier and subsequent entry into the interior of the brain.
- Delivery of highly cytotoxic drugs into bacteria living in an acidic environment, specifically H. PYLORI, a major cause of ulcers in the stomach.
- Transdermal delivery of lipophilic drugs.

TRANSDERMAL DRUG DELIVERY. The Company believes that its CYTOPORTER drug delivery engine may have the potential for transdermal delivery of selected substances. Placing an acidic, lipid-soluble form of the engine with an attached drug in contact with the surface of the skin results in the diffusion of the drug-engine through the lipid layers of the outer barrier of the skin (the extracellular matrix of the stratum corneum). Upon contact with the aqueous compartment underlying the stratum corneum, the drug-engine is drawn actively into this compartment through progressive ionization and solvation of the engine in the neutral conditions of this environment. This results in delivery of the attached drug into the underlying tissues, with subsequent distribution throughout the body.

## NEAR-TERM DRUG DELIVERY PRODUCTS

The Company has selected cyclosporin and paclitaxel (Taxol) as the initial drugs to be combined with its CYTOPORTER delivery engine for its enhanced drug products. Additionally, the Company plans to apply its drug delivery technology to current drugs used to treat inflammation, pain, and infectious diseases. The Company plans to work with pharmaceutical collaborators to bring its drug delivery technology to the market in a timely fashion. The Company has not, however, entered into any arrangements with pharmaceutical collaborators, and there can be no assurance that the Company will be able to do so or that if entered into, the arrangements will be successful in bringing the technology to the market in a timely fashion.

CYCLOSPORIN-CP. Cyclosporin is a drug marketed by Sandoz AG whose patent life expired in 1996. It is the transplantation anti-rejection drug of choice worldwide, with an estimated market size of \$1 billion. Difficulties with delivery prevent broader systemic use and topical applications.

Cyclosporin is an immunosuppressive drug that inhibits the function of lymphocytes involved in mounting a rejection response in patients undergoing organ transplantation. It has both poor solubility and poor delivery to its site of action. Consequently, larger doses of the drug are required in order to achieve a clinical level of effectiveness than if the drug readily reached its site of action. These higher dosages lead to renal toxicity and other problems that limit broader use. The Company believes that combining its CYTOPORTER drug delivery engine with cyclosporin (Cyclosporin-CP) potentially would eliminate these delivery difficulties, resulting in lower dosages, fewer side effects, and broader usage. The Company expects to begin pre-clinical studies with Cyclosporin-CP in 1997 and to file an IND to begin clinical trials with this agent in 1998. There can be no assurance that the Company will be able to file or obtain an approval for an IND in 1998 or at all. PACLITAXEL-CP. Taxol is a Bristol-Myers Squibb drug whose patent life expires in 1997. It is the largest selling cancer therapeutic worldwide, with sales of approximately \$580 million in 1995. However, severe solubility and delivery problems greatly limit its use and effectiveness.

Paclitaxel is indicated to treat ovarian cancer and is being used experimentally to treat numerous cancers including breast cancer. The current paclitaxel formulation is not readily soluble in aqueous solutions, requiring the use of the solvent Cremophor-Registered Trademark-EL. Injection of the drug/solvent combination causes hypersensitivity reactions, leaching of plasticizer from PVC infusion bags, haziness of diluted solutions and the need for in-line filters. The Company believes that combining its CYTOPORTER delivery engine with paclitaxel (Paclitaxel-CP) could eliminate the need for solvent in the formulation, thereby

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eliminating solvent-associated problems. This development could result in more optimized dosing, a reduction in side effects, and broader usage. The Company expects to begin pre-clinical trials of Paclitaxel-CP in 1998.

LONG-TERM PRODUCT DEVELOPMENT PROGRAM--NEU-GENE/CYTOPORTER DRUG COMBINATIONS

The following table summarizes the Company's broader drug development program. These programs combine the Company's NEU-GENE antisense technology with its CYTOPORTER drug delivery technology. For each indication, NEU-GENES have been designed to target the disease process at the genetic level. The Company has designed CYTOPORTER to deliver the NEU-GENE drugs to their intracellular site of action. Although NEU-GENES may display clinical efficacy on their own, the Company believes that broad use of NEU-GENES and other antisense compounds will require a drug delivery strategy. CYTOPORTER drug delivery engines were developed to facilitate the delivery of the NEU-GENE BACKBONE and are currently being optimized for that purpose.

All of the development programs listed below are in the research or lead compound stage. Disease targets have been identified and NEU-GENE compounds have been produced and tested in laboratory and/ or animal models. In some cases, lead compounds have been produced which are undergoing optimization prior to pre-clinical development. The Company believes that several of these compounds may move into pre-clinical development in the next two years.

INFECTIOUS DI	INFECTIOUS DISEASE TARGETS			SE TARGETS
	Potential Indications			Potential Indications
Development Program		Development	Program	
HIV Hepatitis B, C	AIDS, HIV-I Infection Hepatitis, Liver Cancer	TNF Alpha Icam-1		Inflammation Inflammation
Herpes Simplex Virus Cytomegalovirus	Ocular, Genital Herpes Retinitis	Telomerase		Cancer

### INFECTIOUS DISEASE TARGETS

HUMAN IMMUNODEFICIENCY VIRUS ("HIV"). The Company has initiated a program to produce and evaluate NEU-GENE agents directed at HIV targets. The Centers for Disease Control ("CDC") estimated that, by the end of 1995, there were one million HIV-infected persons in the United States and the cumulative number of diagnosed AIDS cases approximated 500,000. The World Health Organization estimated that worldwide there were approximately 10 million individuals infected with HIV by the end of 1995. Currently, there are few FDA-approved therapies for the treatment of HIV-infected individuals and drugs that are available have significant toxic side effects. HEPATITIS B ("HBV"). The Company has initiated a program to produce and evaluate NEU-GENE compounds directed at HBV targets. HBV is a major health problem throughout the world, with epidemic infection levels in certain less developed countries. HBV was estimated in 1995 to be the second leading cause of death in the world. There are an estimated 300,000 new hepatitis infections in the United States each year and approximately one million people with chronic infection. Although there are effective vaccines against HBV, there are currently no FDA-approved therapies for the treatment of chronic or acute HBV infection.

HEPATITIS C ("HCV"). The Company has initiated a program to produce and evaluate NEU-GENE compounds directed at HCV targets. HCV is a major health problem in many parts of the world, including the United States where there are approximately 150,000 new infections each year (about 40% of all acute hepatitis cases). The mechanism of transmission may involve the exchange of blood, although the route of

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transmission in many cases is obscure. There are no FDA-approved vaccines or therapeutic drugs for the treatment of HCV.

HERPES SIMPLEX VIRUS ("HSV"). The Company is developing HSV NEU-GENE compounds for the treatment of HSV type I and type II. Primary herpes infections are usually severe and may involve skin, mucous membranes, conjunctivae or the central nervous system. After remission of the initial infection, the virus establishes a latent phase which is interrupted periodically by outbreaks or herpetic lesions. Newborns can be infected at birth, which results in 50% mortality, and survivors may suffer from permanent neurological damage. Approximately 500,000 new cases each of genital herpes and oral herpes infection occur annually in the United States. It is estimated that approximately 10 million Americans suffer from some form of primary or recurrent herpes infection each year.

CYTOMEGALOVIRUS ("CMV"). The Company is developing NEU-GENE compounds for the treatment of CMV infections. CMV is a member of the herpes family of viruses and is the most common cause of intrauterine and congenital infections in newborns of infected mothers. CMV retinitis is a severe problem in transplant patients and patients with immunosuppression (e.g., AIDS), often leading to blindness and pneumonitis, one of the most lethal viral syndromes. Current FDA-approved treatments for CMV retinitis suffer from dose-limiting side effects and have been associated with the emergence of drug-resistant CMV strains.

## HOST DISEASE TARGETS

The Company is evaluating NEU-GENES for the treatment of inflammatory diseases and cancer, two major host diseases. Inflammation is a crucial component of a number of acute and chronic diseases. Although inflammation is a key part of the normal physiological response to injury, alterations to the normal inflammatory process often lead to inflammatory diseases. These inflammatory disorders can affect practically every organ system in the body. The interactions at the molecular level that cause inflammation are becoming better understood and provide targets for intervention by antisense approaches. Two families of potential targets include cellular mediators (TNF alpha) and cellular adhesion molecules (ICAM-1), which are proteins involved in various stages of the inflammatory process. The Company believes that by targeting messenger RNA with NEU-GENE compounds, control of these mediators of inflammation may be possible.

TNF ALPHA. TNF alpha has been implicated as a significant factor in psoriasis, arthritis and other inflammatory disorders. Psoriasis is a serious chronic, recurring skin disease that involves proliferation of keratinocytes within the epidermal layer of the skin. Approximately six million individuals in the United States are afflicted by psoriasis and approximately 200,000 new cases are diagnosed annually. Current psoriasis therapies are varied but offer limited results. The Company has demonstrated that its NEU-GENE compounds are effective in inhibiting TNF alpha in laboratory and animal models of inflammation. ICAM-1. ICAM-1 facilitates the migration of immune cells involved in both acute and chronic inflammation. Over-production of ICAM-1 is specifically implicated in a wide variety of inflammatory disorders, such as rheumatoid arthritis, asthma, psoriasis, organ transplant rejection, and inflammatory bowel disease. The Company has targeted NEU-GENES against the adhesion molecule ICAM-1 and is testing these compounds in models of inflammation.

TELOMERASE. Telomerase is an enzyme found in cancer cells but rarely in normal cells and the Company believes that inhibiting it may provide a broad general approach to treat most cancers. There are approximately one million new cases of cancer of all types reported in the United States annually. This leads to about 500,000 deaths in the United States attributed to cancer each year, making it the country's second leading cause of death. The Company has developed NEU-GENE compounds that block telomerase activity in model systems in the laboratory.

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## COLLABORATIVE AGREEMENTS

The Company believes that antisense and drug delivery technologies are broadly applicable for the potential development of pharmaceutical products in many therapeutic areas. To exploit its core technologies as fully as possible, the Company's strategy is to enter into collaborative research agreements with major pharmaceutical companies directed at specific molecular targets. It is anticipated that collaborative research agreements may provide the Company with funding for programs conducted by the Company aimed at discovering and developing antisense compounds to inhibit the production of individual molecular targets. Partners may be granted options to obtain licenses to co-develop and to market drug candidates resulting from its collaborative research programs. The Company intends to retain manufacturing rights to its antisense products. There can be no assurance, however, it will be able to enter into collaborative research agreements with large pharmaceutical companies on terms and conditions satisfactory to the Company.

## MANUFACTURING

The Company believes that it has developed significant proprietary manufacturing techniques which will allow large-scale, low-cost synthesis and purification of NEU-GENES. Because the Company's NEU-GENE compounds are based upon a malleable BACKBONE chemistry, the Company believes that NEU-GENE synthesis will be more cost-effective than those of competing technologies. The Company has established sufficient manufacturing capacity to meet immediate research and development needs.

The Company currently intends to retain manufacturing rights to all products incorporating its proprietary and patented technology, whether such products are sold directly by the Company or through collaborative agreements with industry partners. The Company's current production capacity is insufficient for the requirements of human clinical studies. Consequently, the Company intends to contract with a Good Manufacuring Practices ("GMP") facility beginning in 1997 to produce its near term therapeutic candidates for pre-clinical and clinical trial studies. There is no assurance, however, that the Company's plans will not change as a result of unforeseen contingencies.

In March 1993, the Company moved to its present laboratory facility. This facility and the laboratory procedures followed by the Company 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 to commercialization. The Company will be required to comply with FDA requirements for GMP in connection with human clinical trials and commercial production. See "Drug Approval Process and Other Government Regulations."

### MARKETING STRATEGY

The Company plans to market the initial products for which it obtains regulatory approval, through marketing arrangements or other licensing arrangements with large pharmaceutical companies. Implementation of this

strategy will depend on many factors, including the market potential of any products the Company develops and the Company's financial resources. The Company does not expect to establish a direct sales capability for therapeutic compounds for at least the next several years. To market products that will serve a large, geographically diverse patient population, the Company expects to enter into licensing, distribution, or partnering agreements with pharmaceutical companies that have large, established sales organizations. The timing of the Company's entry into marketing arrangements or other licensing arrangements with large pharmaceutical companies will depend on successful product development and regulatory approval within the regulatory framework established by the Federal Food, Drug and Cosmetics Act, as amended, and regulations promulgated thereunder. Although the implementation of initial aspects of the Company's 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 investigational new drug application and the Company's marketing strategy therefore may not

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be implemented for several years. See "Drug Approval Process and Other Governmental Regulations." See "Risk Factors--Dependence on Third Parties for Clinical Testing, Manufacturing and Marketing."

## PATENTS AND PROPRIETARY RIGHTS

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

The Company owns eleven US patents covering various polymer compositions effective in sequence-specific binding to single-stranded nucleic acids, subunits used in producing the polymers, therapeutic and diagnostic applications of the polymers, combinatorial library compositions formed from the subunits, and polymer compositions effective in sequence-specific binding to double-stranded nucleic acid. The issued patents expire between 2008 and 2014. Corresponding patent applications have been filed in Europe, Japan, Australia, and Canada, and nine of these foreign applications have been granted as patents, with expiration dates between 2006 and 2012. The Company has additional pending applications in the area of its NEU-GENES technology, and has filed patent applications covering the basic compositions of matter, methods of synthesis, and medical uses of CYTOPORTER compounds. The Company intends to protect its proprietary technology with additional filings as appropriate.

There can be no assurance that any patents applied for will be granted or that patents held by the Company will be valid or sufficiently broad to protect the Company's technology or provide a significant competitive advantage, nor can the Company provide assurance that practice of the Company's patents or proprietary technology will not infringe third-party patents.

Although the Company believes that it has independently developed its technology and attempts to ensure that its technology does not infringe the proprietary rights of others, if infringement were alleged and proven, there can be no assurance that the Company could obtain necessary licenses on terms and conditions that would not have an adverse effect on the Company. The Company is not aware of any asserted or unasserted claims that its technology violates the proprietary rights of any person. See "Risk Factors--Patents and Proprietary Rights."

### DRUG APPROVAL PROCESS AND OTHER GOVERNMENT REGULATION

The production and marketing of the Company's products and its research and development activities are subject to regulation for safety, efficacy and quality by numerous governmental authorities in the United States and other countries. In the United States, drugs are subject to rigorous regulation. The Federal Food, Drug and Cosmetics Act, as amended, and the regulations promulgated thereunder, as well as other federal and state statutes and regulations, govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, record keeping, approval, advertising and promotion of the Company's proposed products. Product development and approval within this regulatory framework take a number of years and involve the expenditure of substantial resources. In addition to obtaining FDA approval for each product, each drug manufacturing establishment must be registered with, and approved by the FDA. Domestic manufacturing establishments are subject to regular inspections by the FDA and must comply with GMP. To supply products for use in the United States, foreign manufacturing establishments must also comply with GMP and are subject to periodic inspection by the FDA or by regulatory authorities in certain of such countries under reciprocal agreement with the FDA.

NEW DRUG DEVELOPMENT AND APPROVAL. The United States system of new drug approval is the most rigorous in the world. According to a February 1993 report by the Congressional Office of Technology Assessment, it cost an average of \$359 million and took an average of 15 years from discovery of a

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compound to bring a single new pharmaceutical product to market. Approximately one in 1,000 compounds that enter the pre-clinical testing stage eventually makes it to human testing and only one-fifth of those are ultimately approved for commercialization. In recent years, societal and governmental pressures have created the expectation that drug discovery and development costs can be reduced 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, typically tens of thousands of potential compounds are randomly screened for activity in an assay assumed to be predictive of a particular disease process. This drug discovery process can take several years. Once a "screening lead" or starting point for drug development is found, isolation and structural determination are initiated. Numerous chemical modifications are made to the screening lead (called "rational synthesis") in an attempt to improve the drug properties of the lead. After a compound emerges from the above process, it is subjected to further studies on the mechanism of action and further IN VITRO animal screening. If the compound passes these evaluation points, animal toxicology is performed to begin to analyze the toxic effect of the compound, and if the results indicate acceptable toxicity findings, the compound emerges from the basic research mode and moves into the pre-clinical phase. The Company has many compounds at the drug discovery phase and three components that it expects to move to pre-clinical testing within 12 to 24 months.

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 can take up to three years or more to complete. The Company's restenosis compound currently is in pre-clinical testing and the Company presently anticipates that Cyclosporin-CP will enter this phase in 1997 and Paclitaxel-CP in 1998.

INVESTIGATIONAL NEW DRUG APPLICATION. After pre-clinical testing, an IND is filed with the FDA to begin human testing of the drug. The IND becomes effective if the FDA does not reject it within 30 days. The IND must indicate the results of previous experiments, how, where and by whom the new studies will be conducted, how the chemical compound is manufactured, the method by which it is believed to work in the human body, and any toxic effects of the compound found in the animal studies. In addition, the IND must be reviewed and approved by an Institutional Review Board consisting of physicians at the hospital or clinic where the proposed studies will be conducted. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA. The Company expects to file two INDs in 1998. PHASE I CLINICAL TRIALS. After an IND becomes effective, Phase I human clinical trials can begin. These studies, involving usually between 20 and 80 healthy volunteers, can take up to one year or more to complete. The studies determine a drug's safety profile, including the safe dosage range. The Phase I clinical studies also determine how a drug is absorbed, distributed, metabolized and excreted by the body, as well as the duration of its action.

PHASE II CLINICAL TRIALS. In Phase II clinical trials, controlled studies of approximately 100 to 300 volunteer patients with the targeted disease assess the drug's effectiveness. These studies are designed primarily to evaluate the effectiveness of the drug on the volunteer patients as well as to determine if there are any side effects on these patients. These studies can take up to two years or more and may be conducted concurrently with Phase I clinical trials. In addition, Phase I/II clinical trials may be conducted that evaluate not only the efficacy but also the safety of the drug on the patient population. The Company anticipates that its Phase I/Phase II clinical trials with Resten-NG and Cyclosporin-CP will begin in 1998.

PHASE III CLINICAL TRIALS. This phase typically lasts up to three years or more and usually involves 1,000 to 3,000 patients with the targeted disease. During the Phase III clinical trials, physicians monitor the

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patients to determine efficacy and to observe and report any adverse reactions that may result from long-term use of the drug.

NEW DRUG APPLICATION ("NDA"). After the completion of all three clinical trial phases, the data are analyzed and if the data indicate that the drug is safe and effective an NDA is filed with the FDA. The NDA must contain all of the information on the drug that has been gathered to date, including data from the clinical trials. NDAs are often over 100,000 pages in length. The average NDA review time for new pharmaceuticals approved in 1995 was approximately 19 months.

FAST TRACK REVIEW. In December 1992, the FDA formalized procedures for accelerating the approval of drugs to be marketed for the treatment of certain serious diseases for which no satisfactory alternative treatment exists, such as Alzheimer's disease and AIDS. If it is demonstrated that the drug has a positive effect on survival or irreversible morbidity during Phase II clinical trials, then the FDA may approve the drug for marketing without completion of Phase III testing.

APPROVAL. If the FDA approves the NDA, the drug becomes available for physicians to prescribe. The Company must continue to submit periodic reports to the FDA, including descriptions of any adverse reactions reported. For certain drugs which are administered on a long-term basis, the FDA may request additional clinical studies (Phase IV) after the drug has begun to be marketed to evaluate long-term effects.

In addition to regulations enforced by the FDA, the Company also is or will be subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other present and future federal, state or local regulations. The Company's research and development activities involve the controlled use of hazardous materials, chemicals, viruses and various radioactive compounds. Although the Company believes that its safety procedures for handling and disposing of such materials comply with the standard prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable for any damages that result, and any such liability could exceed the resources of the Company.

For marketing outside the United States, the Company or its prospective licensees will be subject to foreign regulatory requirements governing human clinical trials and marketing approval for drugs and devices. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country.

### COMPETITION

Several companies are pursuing the development of antisense technology, including Glaxo, Boehringer Ingelheim, Gilead, Hybridon, ISIS, and Lynx. All of these companies are in development stages, and, in some cases, are in human trials with antisense compounds generally similar to the Company's NEU-GENE compounds. While the Company believes that none of these companies is likely to introduce an antisense compound into the commercial market in the immediate future, many pharmaceutical and biotechnology companies, including all of those listed above, have financial and technical resources greater than those currently available to the Company and have more established collaborative relationships with industry partners than does the Company. Lynx has recently announced that it plans to begin clinical trials with an antisense compound for restenosis and that it will co-develop this potential application with Schwarz Pharma AG. The Company believes that the combination of pharmaceutical properties of its NEU-GENE compounds for restenosis afford it competitive advantages when compared with the antisense compounds of competitors. Many companies are pursuing drug delivery technology including Biovail, Cellegy Pharmaceuticals, Cygnus, and Noven, among others. If the Company's antisense and drug delivery technologies attain regulatory and commercial acceptance as the basis for the commercial pharmaceutical products, it is to be expected that additional companies, including large, multinational pharmaceutical

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companies, will choose to compete in the Company's markets, either directly or through collaborative arrangements.

The Company can also expect to compete with other companies exploiting alternative technologies that address the same therapeutic needs as does the Company's technology. 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 the Company.

### FACILITIES

The Company occupies 18,400 square feet of leased laboratory and office space at 4575 S.W. Research Way, Suite 200, Corvallis, Oregon 97333. The Company's executive office is located in 2,400 square feet of leased space at One S.W. Columbia, Suite 1105, Portland, Oregon 97258.

### EMPLOYEES

As of March 31, 1997, the Company had 32 employees, 12 of whom hold advanced degrees. Twenty-seven employees are engaged directly in research and development activities, and five are in administration. None of the Company's employees is covered by collective bargaining agreements, and management considers relations with its employees to be good.

### MANAGEMENT OF THE COMPANY

#### DIRECTORS AND EXECUTIVE OFFICERS

The directors and officers of the Company and their ages are as follows:

NAME	AGE	POSITION
John A. Beaulieu(1)(2)	62	Chairman of the Board
Denis R. Burger, Ph.D.(1)	53	Chief Executive Officer, Director
James E. Summerton, Ph.D.(1)	52	President, Chief Scientific Officer, Director
Alan P. Timmins	37	Chief Operating Officer, Chief Financial Officer
Dwight D. Weller, Ph.D	46	Vice President of Research and Development, Director
Frederick C. Pearson, Ph.D	53	Vice President of Regulatory Affairs and Clinical Development
Nick Bunick	60	Director
James B. Hicks, Ph.D	50	Director
Donald R. Johnson, Ph.D.(1)	68	Director
James E. Reinmuth, Ph.D.(2)	56	Director

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(1) Member of the Executive Committee

(2) Member of the Compensation and Audit Committees

JOHN A. BEAULIEU has served as a director at the Company since 1991 and was elected Chairman in January 1996. He is the Managing Partner of Cascadia Pacific Management, LLC. ("CPM"). CPM is the contract manager for the Oregon Resource and Technology Development Fund, a state-funded venture capital fund. Mr. Beaulieu is also a general partner in Seed Management, a Vancouver B.C.-based venture capital firm. Mr. Beaulieu is a director of TCC Communications, Biozyme Inc., Virtual Corp., EPC Inc., and Puriponics LLC. Mr. Beaulieu received his BS&C degree in Accounting and an M.B.A. from the University of Santa Clara.

DENIS R. BURGER, PH.D. has served as Chief Executive Officer of the Company since January 1996 and as a director of the Company since 1991. From 1992 to 1995 he was President and Chief Operating Officer

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of the Company. He co-founded Epitope, Inc., a biotechnology company, and served as Chairman from 1981 to 1990. 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 Cellegy Pharmaceuticals, Inc., an emerging pharmaceutical company focused on drug delivery, SuperGen, Inc., a pharmaceutical company focused on life-threatening diseases, and Trinity Biotech, plc., an Irish diagnostics company. Dr. Burger held the positions of Assistant Professor, Associate Professor and Professor at the Oregon Health Sciences University ("OHSU") from 1969 to 1986. Dr. Burger received a B.A. in Bacteriology and Immunology from the University of California at Berkeley and his M.S. and Ph.D. degrees in Microbiology and Immunology from the University of Arizona.

JAMES E. SUMMERTON, PH.D. has been President and Chief Scientific Officer since January 1996. He founded the Company in 1980 and was its Chairman and Chief Executive Officer until January 1996. He held the position of assistant professor of Biochemistry-Biophysics at Oregon State University from 1978 to 1980. He is the inventor or co-inventor on all of the Company's patents and pending applications. Dr. Summerton received a B.S. in Chemistry from Northern Arizona University and a Ph.D. from the University of Arizona. Dr. Summerton first conceived of the concept of sequence-specific gene-inactivation in 1969.

ALAN P. TIMMINS has served as Chief Operating Officer and Chief Financial Officer of the Company since October 1996 and Executive Vice President and Chief Financial Officer since 1992. From 1981 to 1991 he served in a variety of positions at the firm of Price Waterhouse LLP, most recently as a Senior Manager specializing in high technology and emerging growth companies. 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.

DWIGHT D. WELLER, PH.D. has served as Vice President of Research and Development of the Company since 1992 and as a director of the Company since 1991. He joined the faculty of Oregon State University in 1978 as Assistant Professor and was an Associate Professor in the Chemistry Department from 1984 to 1992. He is co-inventor on all but one of the Company's issued patents and patent applications. 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.

FREDERICK C. PEARSON, PH.D. has served as Vice President of Regulatory Affairs and Clinical Development for the Company since March 1997. From 1994 to 1997 he served as Director of Biotechnology for the Colorado Advanced Technology Institute. During 1992 and 1993 he was Vice President and General Manager of Greenwich Pharmaceuticals, Inc., and Vice President, Product Development for the Virus Research Institute. Additionally, he served from 1988 to 1992 as Vice President, Scientific Affairs for Cell Technology. From 1986 through 1988 he was Vice President, Renal Therapy Division, Baxter International. Dr. Pearson received a B.S. in Biology from Nasson College in 1966 and his Ph.D. in Microbiology/ Virology from the University of New Hampshire in 1972.

NICK BUNICK has served as a director of the Company since 1992. Mr. Bunick is the President and Chairman of the Board of three real estate development companies and one investment management company. From 1987 to 1990, he was a Vice President of In-Focus Systems, Inc., a company that specializes in the design and manufacturing of flat panel display products. Mr. Bunick received a B.S. in Business Administration and Marketing from the University of Florida.

JAMES B. HICKS, PH.D. has served as a director of the Company 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. Previously, he was a founding scientist and a Senior Scientific Director at ICOS Corporation from 1990 to 1993, and Director of the PPG Industries/Scripps Joint Research Program at Scripps Clinic, as well as an Adjunct Member of the Molecular Biology Department in the Research Institute of Scripps Clinic from 1986 to 1990. From 1978 through 1986 he was Senior Scientist and Lab

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Chief of the Delbruck Laboratory at Cold Spring Harbor Laboratory. 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.

DONALD R. JOHNSON, PH.D. has served as a director of the Company since 1991. He founded Technology Conversion, a research and new product development consulting firm in 1986, and has served as its President since that time. Dr. Johnson was Director, New Technology Research, Diagnostic and Bioresearch Products at E. I. du Pont de Nemours and Company, Inc., from 1983 to 1986. Dr. Johnson received a B.A. in Chemistry from the University of Minnesota and a Ph.D. in Analytical Chemistry from the University of Wisconsin.

JAMES E. REINMUTH, PH.D. has served as a director of the Company since 1991. He was Dean of the College of Business Administration at the University of Oregon from 1976 to 1994 and since 1995 has been the Charles H. Lundquist Distinguished Professor of Business at University of Oregon. Dr. Reinmuth is the Chairman of the Board of Directors and Chief Executive Officer of Athena Medical Corp., a feminine health care company. He is also the President and Chief Executive Officer of Fuji Advanced Filtration, Inc. Dr. Reinmuth is a general partner in Rubicon Asset Management Corp. Dr. Reinmuth received a B.S. in Mathematics from the University of Washington and his M.S. and Ph.D. degrees in Statistics from Oregon State University.

JOSEPH RUBINFELD, PH.D. has been a director of the Company since 1996. He has served as Chief Executive Officer, President, Chief Scientific Officer and a director of SuperGen, Inc. since its inception in 1992. Dr. Rubinfeld was one of the four initial founders of Amgen Inc. in 1980 and served as Vice President and Chief of Operations until 1983. From 1987 to 1990, he was Senior Director at Cetus Corporation. From 1968 to 1980, Dr. Rubinfeld was employed at Bristol-Myers Squibb (formerly Bristol-Myers International Corporation) in a variety of positions, most recently as Vice President and Director of Research and Development. 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.

## DIRECTOR COMPENSATION

Directors who are not employees of the Company receive a non-qualified option to purchase 33,333 shares of Common Stock at an exercise price equal to the fair market value of the Common Stock on the date of the grant pursuant to the Company's Stock Incentive Plan, which vests over four years. See "Stock Incentive Plan." Drs. Johnson and Rubinfeld are reimbursed for expenses for attendance at board meetings. The Company has established relationships with a group of scientific advisors with expertise in their respective fields that complement the Company's product research and development. The following individuals serve on the Scientific Advisory Committee to the Company's Board of Directors:

CHRISTOPHER K. MATHEWS, PH.D. is Chairman of the Scientific Advisory Committee. He is the Chairman of the Biochemistry-Biophysics Department at Oregon State University. Dr. Mathews received a B.A. from Reed College and a Ph.D. in Biochemistry from the University of Washington. He performed postdoctoral work in Biochemistry at the University of Pennsylvania. Dr. Mathews joined the Scientific Advisory Committee in 1994 and was a director of the Company from 1991 to 1994.

STEVEN H. HEFENEIDER, PH.D. has been a staff immunologist at the Veterans Administration Medical Center in Portland, Oregon since 1985 and Research Associate Professor in the Department of Medicine at Oregon Health Sciences University ("OHSU") since 1987. He received a B.S. in biology from the University of Oregon, an M.S. in genetics from the University of Minnesota and a Ph.D. in Microbiology and Immunology from OHSU in 1981.

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DAVID J. HINRICHS, PH.D. is a Research Scientist at the Veterans Administration Medical Center in Portland, Oregon and a Professor of Microbiology and Immunology at OHSU. From 1976 to 1985 he was a Professor of Microbiology at Washington State University. He received a Ph.D. in Microbiology from the University of Arizona in 1967.

JEFFREY D. HOSENPUD, M.D. has been Chief of Cardiology and a Professor of Medicine at the Medical College of Wisconsin in Milwaukee since 1994. Dr. Hosenpud was Professor of Medicine and Head of the Cardiac Transplant Medicine at OHSU from 1980 to 1994, and Medical Director for the Registry of the International Society for Heart & Lung Transplantation since 1993. Dr. Hosenpud competed his M.D. at the University of California, Los Angeles.

# EXECUTIVE COMPENSATION

SUMMARY COMPENSATION TABLE. The following table sets forth, for the fiscal year ended December 31, 1996, certain summary information concerning compensation of the persons serving as the Company's Chief Executive Officer (the "Named Officers"). No other executive officer received compensation exceeding \$100,000.

## SUMMARY COMPENSATION TABLE

				LONG-TERM COMPENSATION	
				SECURITIES UNDERLYING	ALL OTHER
		SALARY	BONUS	OPTIONS	COMPENSATION(1)
Denis R. Burger, Ph.D Chief Executive Officer	\$	121,925			2,443
James E. Summerton, Ph.D President and Chief Scientific Officer(2)	\$	92,483			2,712

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- (1) Represents matching amounts received under the Company's 401(k) plan.
- (2) Dr. Summerton resigned as the Chairman and Chief Executive Officer in January 1996 and is now the Company's President and Chief Scientific Officer.

### YEAR AND FISCAL YEAR-END OPTION VALUES

The following table sets forth information concerning the value of unexercised options as of December 31, 1996, held by the Named Officer. No options were exercised by the Named Officer during the year ended December 31, 1995.

	UNDE UNEXERCISE	SECURITIES RLYING D OPTIONS AT 1, 1996 (#)	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT DECEMBER 31, 1996 (\$)(1)			
NAME	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE		
Denis R. Burger, Ph.D James Summerton, Ph.D.(2)	365,735 132,220	 93,334	520,487 144,502	 125,418		

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(1) Based upon the difference between the fair market value of the securities underlying the options at December 31, 1996 (\$6.00 per share as determined by the Board of Directors) and the exercise price of the options.

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(2) Dr. Summerton resigned as the Chairman and Chief Executive Officer in January 1996 and is now the Company's President and Chief Scientific Officer.

### EMPLOYMENT AGREEMENTS

The Company has entered into employment contracts with Messrs. Burger and Summerton that provide for annual base salaries for Drs. Burger and Summerton of \$120,000 and \$90,000, respectively, that increase to \$225,000 and \$150,000, respectively, on January 1, 1997. The employment agreements also provide for the payment to Drs. Burger and Summerton of one additional year of base salary and the immediate and full vesting of all options granted to them under the Company's stock incentive plan in the event of the termination of their respective employment for reasons, other than cause, or upon their voluntary termination upon a change in control of the Company. In addition, the employment agreements prevent Drs. Burger and Summerton from competing with the Company for a period of two years following termination of their employment for any reason. Dr. Summerton's agreement also provides that the Company shall engage him as a consultant for a term of one year following the termination of his employment at the rate of \$75,000 per year and grants the Company the option to engage him as a consultant on the same terms for a second year. Drs. Burger and Summerton are deferring their January 1, 1997, salary increases until completion of the Company's initial public offering.

### STOCK INCENTIVE PLAN

The Stock Incentive Plan was adopted by the Board of Directors and was approved by the shareholders in 1992. The purposes of the Stock Incentive Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to the employees and consultants of the Company and to promote the success of the Company's business.

The Stock Incentive Plan is administered by the Compensation Committee (the "Committee"). Transactions under the Stock Incentive Plan are intended to comply with all applicable conditions of Rule 16b-3 promulgated under the Securities Exchange Act of 1934. In addition to determining who will be granted options, the Committee has the authority and discretion to determine when options will be granted and the number of options to be granted. The Committee may determine which options may be intended to qualify ("Incentive Stock Options") for special treatment under the Internal Revenue Code of 1986, as amended from time to time (the "Code"), or whether options are non-qualified options ("Non-Qualified Stock Options") which are not intended to so qualify. The Committee also may determine the time or times when each option becomes exercisable, the duration of the

exercise period for options and the form or forms of the instruments evidencing options granted under the Stock Incentive Plan. The Committee may adopt, amend and rescind such rules and regulations as in its opinion may be advisable for the administration of the Stock Incentive Plan. The Committee also may construe the Stock Incentive Plan and the provisions in the instruments evidencing option granted under Stock Incentive Plan to employee and officer participants and is empowered to make all other determinations deemed necessary or advisable for the administration of the Stock Incentive Plan. SARs and stock bonuses may also be granted under the Stock Incentive Plan.

The Stock Incentive Plan contains provisions for proportionate adjustment of the number of shares for outstanding options and the option price per share in the event of stock dividends, recapitalizations resulting in stock splits or combinations or exchanges of shares. In addition, the Stock Incentive Plan provides for adjustments in the purchase price and exercise period by the Committee in the event of a proposed dissolution or liquidation of the Company, or any corporate separation or division, including, but not limited to, split-up, split-off or spin-off, or a merger or consolidation of the Company with another corporation, or in the event there is a change in constitution of the Common Stock of the Company.

Participants in the Stock Incentive Plan may be selected by the Committee from employees, officers, directors and consultants of the Company. In determining the persons to whom options will be granted and

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the number of shares to be covered by each option, the Committee will take into account the duties of the respective persons, their present and potential contributions to the success of the Company and such other factors as the Committee deems relevant to accomplish the purposes of the Stock Incentive Plan.

Only employees of the Company as the term "employees" is defined for the purposes of Code will be entitled to receive Incentive Stock Options. Incentive Stock Options granted under the Stock Incentive Plan are intended to satisfy all requirements for incentive stock options under Section 422 of the Code and the Treasury Regulations thereunder.

Each option granted under the Stock Incentive Plan will be evidenced by a written option agreement between the Company and the optionee. The option price of any Incentive Stock Option may be not less than 100% of the fair market value per share on the date of grant of the option; provided, however, that any Incentive Stock Option granted under the Stock Incentive Plan to a person owning more than 10% of the total combined voting power of the Common Stock will have an option price of not less than 110% of the fair market value per share on the date of grant of the Incentive Stock Option. Each Non-Qualified Stock Option granted under the Stock Incentive Plan will be at an exercise price as determined by the Board of Directors. Fair market value on the date of grant is defined as a value determined in the discretion of the Board; provided, however, that where there is a public market for the Common Stock, the fair market value per share shall be the closing price of the Common Stock for the date of grant or authorization of sale, as reported in THE WALL STREET JOURNAL.

The exercise period of Incentive Stock Options granted under the Stock Incentive Plan generally may not exceed 10 years from the date of grant thereof. Incentive Stock Options granted to a person owning more than 10 percent of the total combined voting power of the Common Stock of the Company will be for no more than five years. The Committee will have the authority to accelerate or extend the exercisability of any outstanding option at such time and under such circumstances as it, in its sole discretion, deems appropriate. However, no exercise period may be extended to increase the term of an Incentive Stock Option beyond 10 years from the date of grant.

To exercise an option, the optionee must pay the full exercise price in whole or in part consisting of cash or transfer to the Company of shares having a fair market value at the time of such exercise equal to the option exercise price.

An option may not be exercised unless the optionee then is an employee, officer, director or consultant of the Company, and unless the optionee has remained continuously as an employee, officer, director or consultant of the Company since the date of grant of the option. If the optionee ceases to be an employee, officer, director or consultant of the Company, all options which are not vested under the Stock Incentive Plan by the time of death, disability, retirement or termination of employment, immediately terminate. All options granted to such optionee that are fully vested to such optionee but not yet exercised, will terminate (i) 12 months after the date the optionee ceases to be an employee, officer or director of the Company by reason of death or disability; or (ii) 30 days after termination of employment for any other reason.

If an optionee dies while an employee, officer, director or consultant, or is terminated by reason of disability, all options theretofore granted to such optionee, unless earlier terminated in accordance with their terms, may be exercised at any time within one year after the date of death or disability of said optionee, by the optionee or by the optionee's estate or by a person who acquired the right to exercise such options by request or inheritance, but only to the extent of the right to exercise as of the date of death or disability.

Options granted under the Stock Incentive Plan are not transferable other than by will or by the laws of descent and distribution. Options may be exercised during the lifetime of the optionee only by the optionee. An optionee has no rights as a shareholder with respect to any shares covered by an option until the option has been exercised.

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The Company, to the extent permitted by law, may deduct a sufficient number of shares due to the optionee upon exercise of the option to allow the Company to pay federal, state and local taxes of any kind required by law to be withheld upon the exercise otherwise due to the optionee. The Company is not obligated to advise any optionee of the existence of any tax or the amount which the Company will be required to withhold.

As of the date of this Prospectus, options to purchase 1,126,886 shares of the Company's Common Stock have been granted and are outstanding under the Stock Incentive Plan, at a weighted average exercise price of \$4.73 per share, and 206,447 shares were available for future grants.

### LIMITATION OF LIABILITY AND INDEMNIFICATION

The Company's Third Restated Articles of Incorporation eliminate, to the fullest extent permitted by Oregon law, liability of a director to the Company or its shareholders for monetary damages for conduct as a director. While liability for monetary damages has been eliminated, equitable remedies such as injunctive relief or rescission remain available. In addition, a director is not relieved of his or her responsibilities under any other law, including the federal securities laws.

The Company's Third Restated Articles of Incorporation require the Company to indemnify its directors to the fullest extent not prohibited by law. The Oregon Business Corporation Act authorizes a corporation, through its articles of incorporation and bylaws, to limit the liability of directors and to grant indemnity to directors, officers, employees or agents for actions taken with respect to corporation in their respective capacities as directors, officers, employees or agents. Indemnification for such liabilities may be provided to an officer, director, employee or agent based upon the determination by a vote of the disinterested Board of Directors, a vote by a special committee of the Board of Directors, by the determination of a special legal counsel or by a vote of the shareholders that the director, officer, employee or agent may properly be indemnified under the statute. The Company believes that the limitation of liability provisions in its Third Restated Articles may enhance the Company's ability to attract and retain qualified individuals to serve as directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company

pursuant to the foregoing provisions or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company 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 Company 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 policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

# CERTAIN TRANSACTIONS OF THE COMPANY AND AGDG

James E. Summerton, Ph.D., the President, Chief Scientific Officer, and a director of the Company, is the general partner of Anti-Gene Development Group ("AGDG"), and was the general partner of NEU-GENE Development Group ("NGDG"). AGDG was founded in 1981 and NGDG was founded in 1984 to own and fund the Company's development of gene-targeted therapeutics and NEU-GENE technology. NGDG and AGDG were combined in 1989, with AGDG as the surviving entity. The Company entered into numerous research and development contracts with AGDG and NGDG, all of which were completed or were superseded by the Technology Transfer Agreement described below.

On February 9, 1993, the Company and AGDG entered into a Technology Transfer Agreement wherein effective May 19, 1993, AGDG conveyed all intellectual property in its control related to antisense

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technology (the "Intellectual Property") to the Company. As part of the conveyance, the Company tendered to AGDG for liquidation all partnership units received pursuant to an 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 in consideration of payments of 4.05% of gross revenues in excess of \$200 million, if any, sales of products by the Company which would, in the absence of the Technology Transfer Agreement, infringe a valid claim under any patent transferred to the Company (the "Technology Fees"). The Company's obligation to make payments of the Technology Fees with respect to a particular product terminates upon the expiration of all patents transferred to the Company pursuant to the Technology Transfer Agreement related to that product.

Pursuant to a License and Option Agreement by and between AGDG and the Company dated February 9, 1993 (the "License Agreement"), the Company granted to AGDG a royalty-free non-exclusive 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, the Company has the right to commercialize and market such products in consideration of payments of 4.05% of gross revenues, in excess of the \$200 million exemption for all products utilizing the Intellectual Property, to AGDG. If the Company elects not to commercialize the proposed AGDG product or fails to meet certain product development milestones, the Company is required to grant AGDG a license to develop and market the proposed product (an "AGDG License"). The Company is entitled to payments for the AGDG license but only if the proposed product incorporates patented improvements developed by the Company to the Intellectual Property. The amount of the license fee payable to the Company by AGDG pursuant to an AGDG License, if any, is equal to the percentage payable to AGDG for products sold by the Company and 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 such time as the Company has 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.

On January 20, 1997, AGDG and the Company amended the Technology Transfer Agreement to reduce the Technology Fees arising from the sale of diagnostic products from 4.05% to 2% and to remove the \$200 million exemption with respect to sales of such diagnostic products. The Company also granted to AGDG a royalty-bearing license to make, use and sell certain quantities of product derived from the Intellectual Property.

The Company's Board of Directors has required, in conformity with Oregon law, that a transaction in which a director has a conflict of interest be approved by a majority of disinterested directors. The Board has recognized that Dr. Summerton has a direct or indirect conflict of interest in connection with transactions between the Company and AGDG and, in such circumstances, the terms and conditions of such transactions have been negotiated for the Company by officers other than Dr. Summerton and have been approved by a majority of disinterested directors after disclosure of the conflict of interest.

Pursuant to an August 4, 1992 restatement of earlier agreements between Oregon Resource and Technology Development Fund ("ORTDF"), the Company, AGDG and Dr. Summerton, warrants to purchase 600,000 shares of the Company's Common Stock have been issued to ORTDF. John A. Beaulieu was president of ORTDF and a director of the Company at that time. In connection with this issuance to ORTDF, they acquired certain rights to register such shares under the Securities Act. See "Description of Securities--Registration Rights." In May 1993, ORTDF acquired warrants to purchase an additional 357,500 shares in exchange for 325 partnership units in AGDG conveyed to the Company. Such warrants carry no registration rights. In March 1996, ORTDF exercised its warrants in a cashless exercise for which ORTDF acquired 957,452 shares of the Company's Common Stock.

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### PRINCIPAL SHAREHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of the Company's Common Stock as of May 16, 1997, and as adjusted to give effect to the sale by the Company of the shares of Common Stock offered pursuant to its Unit Offering (assuming no exercise of the Overallotment Option or the Warrants) by (i) each person (or group of affiliated persons) who is known by the Company to own beneficially 5% or more of the Common Stock, (ii) each of the Company's directors, (iii) the Named Officer, and (iv) all executive officers and directors of the Company as a group. The information as to each person or entity has been furnished by such person or entity, and unless otherwise indicated, the persons named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable.

	0.000000	PERCENT OF SHARES OUTSTANDING			
NAME AND ADDRESS OF BENEFICIAL OWNER(1)		BEFORE UNIT OFFERING	AFTER UNIT OFFERING(1)		
James E. Summerton, Ph.D.(2) ANTIVIRALS Inc. 4575 S.W. Research Way, Suite 200 Corvallis, OR 97333	2,553,473	24.8%	21.6%		
John A. Beaulieu(3)	990,785	9.7%	8.5%		
Oregon Resource and Technology Development Fund(4) 4370 N.E. Halsey, Suite 233 Portland, OR 97213	990,785	9.7%	8.5%		
Wayne Embree(5)	957,452	9.4%	8.2%		
Denis R. Burger, Ph.D.(6) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	406,886	3.9%	3.4%		

Dwight D. Weller, Ph.D.(7) ANTIVIRALS Inc. 4575 S.W. Research Way, Suite 200 Corvallis, OR 97333	370,178	3.6%	3.1%
Nick Bunick(8) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	200,733	2.0%	1.7%
Alan P. Timmins(9) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	68,825	*	*

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		PERCENT OF SHARES OUTSTANDING			
NAME AND ADDRESS OF BENEFICIAL OWNER(1)		BEFORE UNIT OFFERING	AFTER UNIT		
Donald R. Johnson, Ph.D.(10) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258			*		
James E. Reinmuth, Ph.D.(11) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	51,817	*	*		
Joseph Rubinfeld, Ph.D.(12) ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	8,334	*	*		
James B. Hicks, Ph.D ANTIVIRALS Inc. 1 S.W. Columbia, Suite 1105 Portland, OR 97258	0	*	*		
Frederick C. Pearson, Ph.D ANTIVIRALS Inc. 4575 S.W. Research Way, Suite 200 Corvallis, OR 97333	0	*	*		
All executive officers and directors as a group(10 persons)	4,715,365	53.7%	45.9%		

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\* Less than 1%.

- (1) Beneficial ownership is determined in accordance with the 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 convertible, or exercisable or convertible within 60 days of May 16, 1997, are deemed beneficially owned and outstanding for computing the percentage of the person holding such securities, but are not considered outstanding for computing the percentage of any other person.
- (2) Includes 158,886 shares subject to options exercisable within 60 days as of May 16, 1997, and 727,154 shares held jointly or by others over which Dr. Summerton exercises voting and investment power. Does not include 66,667 shares subject to options exercisable after May 16, 1997.
- (3) Includes 33,334 shares subject to options exercisable within 60 days as of May 16, 1997, of which Mr. Beaulieu is the record owner. ORTDF is the beneficial owner of all of the 33,334 options for which Mr. Beaulieu is the record owner. Includes 957,452 shares of common stock issued to Cascadia Pacific Management, LLC for the benefit of ORTDF.

- (4) Includes 33,334 shares subject to options held of record by Mr. Beaulieu and exercisable within 60 days as of May 16, 1997 and 957,942 shares issued to Cascadia Pacific Managment, LLC for the benefit of ORTDF. See Note 3 above.
- (5) Includes 957,452 shares of Common Stock issued to Cascadia Pacific Management, LLC for the benefit of ORTDF.

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- (6) Includes 34,434 shares held by Sovereign Ventures, LLC, a limited liability company in which Dr. Burger is a general partner. Also includes 365,735 shares subject to options exercisable within 60 days as of May 16, 1997.
- (7) Includes 247,634 shares held jointly or by others over which Dr. Weller exercises voting and investment power, 94,018 shares subject to options exercisable by Dr. Weller and 1,860 shares subject to options exercisable by Dr. Weller's spouse as of May 16, 1997, and 25,000 shares subject to warrants exercisable within 60 days as of May 16, 1997. Does not include 25,000 shares subject to warrants exercisable after July 15, 1997.
- (8) Includes 50,667 shares held jointly or by others over which Mr. Bunick exercises voting and investment power. Includes 33,334 shares subject to options exercisable within 60 days as of May 16, 1997.
- (9) Includes 68,825 shares subject to options exercisable within 60 days as of May 16, 1997. Does not include 38,333 shares subject to options exercisable after July 15, 1997.
- (10) Includes 33,334 shares subject to options and 16,667 shares subject to warrants exercisable within 60 days as of May 16, 1997.
- (11) Includes 33,334 shares subject to options exercisable within 60 days as of May 16, 1997. Also includes 5,051 shares held jointly with others over which Dr. Reinmuth exercises voting and investment power.
- (12) Includes 8,334 shares subject to options exercisable within 60 days as of May 16, 1997. Does not include 25,000 shares subject to options exercisable after July 15, 1997.

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### DESCRIPTION OF SECURITIES OF THE COMPANY

The authorized capital stock of the Company consists of 50,000,000 shares of Common Stock and 2,000,000 shares of Preferred Stock.

### COMMON STOCK

The Company is authorized to issue 50,000,000 shares of Common Stock. As of March 31, 1997, 8,779,763 shares of Common Stock were outstanding, held of record by 881 shareholders. The Company anticipates that 10,279,763 shares of

its Common Stock will be outstanding if the Unit Offering is completed. The holders of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of shareholders (and do not have any cumulative voting rights). Subject to preferences that may be applicable to outstanding shares of Preferred Stock, if any, the holders of Common Stock are entitled to receive ratably such dividends as may be declared by the Company's Board of Directors out of funds legally available therefor. Holders of Common Stock have no preemptive, subscription or redemption rights, and there are no redemption, conversion or similar rights with respect to such shares. In the event of a liquidation, dissolution or winding up of the Company, holders of the Common Stock are entitled to share equally and ratably in the assets of the Company, if any, remaining after the payment of all liabilities of the Company and the liquidation preference of any outstanding class or series of Preferred Stock. The outstanding shares of Common Stock are fully paid and nonassessable. The rights, preferences and privileges of holders of Common Stock are subject to any series of Preferred Stock that the Company may issue in the future, as described below.

### PREFERRED STOCK

The Company is authorized to issue up to 2,000,000 shares of undesignated Preferred Stock. No shares of Preferred Stock have been issued. The Board of Directors has the authority to issue the undesignated Preferred Stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon any wholly unissued shares of undesignated Preferred Stock, as well as to fix the number of shares constituting any series and the designation of such series, without any further vote or action by the shareholders. The Board of Directors, without shareholder approval, may issue Preferred Stock with voting and conversion rights which could materially adversely affect the voting power of the holders of Common Stock. The issuance of Preferred Stock could also decrease the amount of earnings and assets available for distribution to holders of Common Stock. In addition, the issuance of Preferred Stock may have the effect of delaying, deferring or preventing a change in control of the Company. At present, the Company has no plans to issue any shares of Preferred Stock. See "Risk Factors--Anti-Takeover Effects of Certain Charter Provisions and Oregon Law" and "Certain Provisions of the Company's Articles of Incorporation and Bylaws."

## WARRANTS

REPRESENTATIVES' WARRANTS. In connection with its Unit Offering, the Company has authorized the issuance of the Representatives' Warrants and has reserved 300,000 shares of Common Stock for issuance upon exercise of such warrant (including the warrants issuable upon exercise of the Representatives' Warrants). The Representatives' Warrants will entitle the holder to acquire up to an aggregate of 150,000 Units at an exercise price of \$ per Unit (120% of the initial public offering price for the Units). The Representatives' Warrants will be exercisable at any time from the first anniversary of the date of the Unit Offering Prospectus until the fifth anniversary of the date of the Unit Offering Prospectus.

THE WARRANTS. In connection with its Unit Offering, the Company will issue 1,500,000 warrants (the "Warrants"). Each Warrant will entitle the holder to purchase one share of Common Stock at a price of \$ per share (150% of the initial public offering price for the Units). The Warrants will, subject to certain conditions, be exercisable at any time until the fifth anniversary of the date of the Unit Offering

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Prospectus, unless earlier redeemed. The Warrants are redeemable by the Company at \$.25 per Warrant, upon 30 days written notice, if the closing bid price (as defined in the Warrant Agreement described below) per share of the Common Stock for each of the 20 consecutive trading days immediately preceding the date notice of redemption is given equals or exceeds 200% of the then-current Warrant exercise price. If the Company gives notice of its intention to redeem, a holder would be forced either to exercise his or her Warrant before the date specified in the redemption notice or accept the redemption price. The Warrants will be issued in registered form under a Warrant Agreement (the "Warrant Agreement") between the Company and ChaseMellon Shareholder Services, as warrant agent (the "Warrant Agent"). The shares of Common Stock underlying the Warrants, when issued upon exercise of a Warrant, will be fully paid and nonassessable, and the Company will pay any transfer tax incurred as a result of the issuance of Common Stock to the holder upon its exercise.

The Warrants and the Representatives' Warrants contain provisions that protect the holders against dilution by adjustment of the number of shares that may be purchased by the holders. Such adjustments will occur in the event, among others, that the Company makes certain distributions to holders of its Common Stock. The Company is not required to issue fractional shares upon the exercise of a Warrant or Representatives' Warrants. The holder of a Warrant or Representatives' Warrants will not possess any rights as a shareholder of the Company until such holder exercises the Warrant or Representatives' Warrants.

A Warrant may be exercised upon surrender of the Warrant Certificate on or before the expiration date of the Warrant at the offices of the Warrant Agent, with the form of "Election To Purchase" on the reverse side of the Warrant Certificate completed and executed as indicated, accompanied by payment of the exercise price (by certified or bank check payable to the order of the Company or by wire transfer of good funds) for the number of shares with respect to which the Warrant is being exercised.

For a holder to exercise the Warrants, there must be a current registration statement in effect with the Commission and qualification in effect under applicable state securities laws (or applicable exemptions from state qualification requirements) with respect to the issuance of shares or other securities underlying the Warrants. The Company has agreed to use all commercially reasonable efforts to cause a registration statement with respect to such securities under the Securities Act to be filed and to become and remain effective in anticipation of and prior to the exercise of the Warrants and to take such other actions under the laws of various states as may be required to cause the sale of Common Stock (or other securities) issuable upon exercise of Warrants to be lawful. If a current registration statement is not in effect at the time a Warrant is exercised, the Company may at its option redeem the Warrant by paying to the holder cash equal to the difference between the market price of the Common Stock on the exercise date and the exercise price of the Warrant. The Company will not be required to honor the exercise of Warrants if, in the opinion of the Company's Board of Directors upon advice of counsel, the sale of securities upon exercise would be unlawful.

The foregoing discussion of certain terms and provisions of the Warrants and Representatives' Warrants is qualified in its entirety by reference to the detailed provisions of the Warrant Agreement and Representatives' Warrants Certificate, the form of each of which has been filed as an exhibit to the Registration Statement filed in connection with the Unit Offering.

For the life of the Warrants and Representatives' Warrants, the holders thereof have the opportunity to profit from a rise in the market price of the Common Stock without assuming the risk of ownership of the shares of Common Stock issuable upon the exercise of the warrants. The warrant holders may be expected to exercise their warrants at a time when the Company would, in all likelihood, be able to obtain any needed capital by an offering of Common Stock on terms more favorable than those provided for by the warrants. Further, the terms on which the Company could obtain additional capital during the life of the warrants may be adversely affected.

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OTHER WARRANTS. The Company has outstanding warrants to purchase 147,899 shares of Common Stock, of which warrants to purchase 25,000 shares are not presently exercisable. Of these warrants, 38,001 are exercisable through the period ending 90 days after the expiration of lock-up agreements entered into in connection with this offering, of which 27,001 are exercisable at a price of \$0.0003 per share and 11,000 are exercisable at a price of \$1.14 per share. Warrants to purchase 14,467 shares are exercisable through July 17, 1997, at an

exercise price of \$0.0003 per share. Warrants to purchase 25,000 shares are exercisable through December 31, 1997, at an exercise price of \$0.0003 per share. Warrants to purchase 1,100 shares are exercisable through August 8, 2001, at an exercise price of \$4.56 per share. Warrants to purchase 44,334 shares are currently exercisable and do not have a termination date; warrants to purchase 11,000 of these shares are exercisable at a price of \$1.14 per share and warrants to purchase 33,334 of these shares are exercisable at \$0.0003 per share.

The Company also has outstanding a warrant to purchase 219,334 shares of Common Stock, exercisable through the earlier of the closing of a firmly underwritten public offering by the Company with proceeds exceeding \$5,000,000 or May 14, 2002, at an exercise price of \$6.00 per share, which price is subject to adjustment to prevent dilution. The exercise is also subject to a fair market value adjustment to make the price paid by the warrant holder equivalent to the price paid by certain independent third-party purchasers. For purposes of this adjustment, an independent third-party purchaser is any party who purchases shares of the Company's Common Stock for not less than \$250,000, who was not a shareholder of the Company on May 1, 1992, and who is not an affiliate, officer or director of the Company. The Company has agreed to register the shares underlying this warrant under certain circumstances. See "Registration Rights."

The Company additionally has outstanding warrants to purchase 60,201 shares of Common Stock at an exercise price of \$9.00 per share. These warrants are exercisable through the earlier of August 30, 2001 or three years from the date of closing by the Company of an initial public offering.

## THE RESCISSION NOTES

In the event that the Company's liability under the Rescission Offer exceeds \$1.5 million and the Company's proposed Unit Offering has not been declared effective and has not closed prior to the Expiration Date, the Company will issue on a pro rata basis to Eligible Offerees who accept the Rescission Offer and who reside in the states of Colorado and Oregon secured promissory notes bearing interest at 9% per annum. Interest will be payable quarterly and principal will be due and payable only at maturity. The terms of the promissory notes will range from 18 to 36 months. There is no sinking fund and holders of the notes will have no right to convert them into other securities of the Company or to have the Company redeem the notes.

Payment by the Company of its obligations under the Notes will be secured by a pledge of shares of the Common Stock of the Company held of record by certain of the Company's directors and executive officer (the "Pledgors"). Under the terms of the Pledge Agreement, prior to the closing of the Company's proposed offering of 1,500,000 units, the Pledgors have agreed to maintain as security for payment of the Notes sufficient shares of Common Stock of the Company that the aggregate value of such shares, based on an estimated value of \$6.00 per share, equals 120 percent of the outstanding principal amount of the Notes. After the closing of the proposed unit offering or any other public offering, the Pledgors have agreed to maintain as security for payment of the Notes sufficient shares of Common Stock of the Company that the aggregate value of such shares, based on the last reported sales price of the Company's Common Stock on the last day of the preceding month, equals 120 percent of the outstanding principal amount of the Notes. The Pledge Agreement provides that, in the event of a default by the Company in the payment of the Notes, shares of the Company's Common Stock subject to the pledge will be sold and the proceeds applied to payment of obligations. The Pledgors have executed the Pledge Agreement, which, together with the Notes, provides that the failure of the Pledgors to fulfill their obligations under the

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Pledge Agreement, including, without limitation, the obligation to maintain the security, shall constitute an event of default with respect to the Notes permitting a sale of the shares subject to the pledge.

There previously has been no public market for the Company's Common Stock and there can be no assurance that an active public market for the Common Stock will be developed or sustained after the Rescission Offer. In addition, even if such a public market does develop, the obligations of the Pledgors to pledge shares is limited to shares held of record by the Pledgors as of the date of this Prospectus and there can be no assurance that the value of the Company's Common Stock on such public market will be sustained at levels so that the shares subject to the pledge will be sufficient to satisfy the obligations of the Company in the event of a default by the Company in the payment of the Notes.

### REGISTRATION RIGHTS

REPRESENTATIVE'S WARRANT. The Representative's Warrant provides certain rights with respect to the registration under the Securities Act of the 300,000 shares issuable upon exercise thereof (including the warrants included therein). The Company has agreed that during the entire period between the first anniversary and fifth anniversary after the date of the Unit Offering Prospectus it will register the issuance of such shares upon the exercise of the Representative's Warrant (and, if necessary, their resale) so as to permit their public resale without restriction. These registration rights could result in substantial future expense to the Company and could adversely affect the Company's ability to complete future equity or debt financings. Furthermore, the registration and sale of Common Stock of the Company held by or issuable to the holders of registration rights, or even the potential of such sales, could have an adverse effect on the market price of the securities offered hereby.

OTHER REGISTRATION RIGHTS. Holders of 834,568 shares of Common Stock, or their transferees, are entitled to certain rights with respect to the registration of such shares under the Securities Act. Under the terms of an Agreement to Purchase Limited Partnership Interests dated as of August 4, 1992 among AGDG, the Company and ORTDF, if the Company purposes to register any of its Common Stock for sale to the public, ORTDF may require the Company to include in such registration any shares of Common Stock issued or issuable upon the exercise of certain warrants to purchase Common Stock of the Company held by ORTDF subject to certain conditions and limitations. As of the date of this Prospectus, ORTDF held 957,452 shares of Common Stock and options to purchase 33,334 shares of Common Stock. ORTDF will not participate in this offering.

Under the terms of a Registration Rights Agreement dated as of May 20, 1992 between the Company and Ice Bear, Inc., an Alaska corporation ("Ice Bear"), if the Company proposed to register any of its stock or other securities under the Act in connection with a public offering of those securities for cash, Ice Bear may require the Company to include in such registration any shares of Common Stock held or issued or issuable upon the exercise of certain warrants to purchase Common Stock of the Company held by Ice Bear subject to certain conditions and limitations. As of the date of this Prospectus, Ice Bear held 21,930 shares of Common Stock and warrants to purchase 219,334 shares of Common Stock. Ice Bear will not participate in this offering.

### SHARES OF THE COMPANY ELIGIBLE FOR FUTURE SALE

There has been no public market for the Company's Common Stock or Warrants. No prediction can be made of the effect, if any, that future market sales of shares of Common Stock or the availability of such shares for sale will have on the prevailing market price of the Common Stock following the proposed Unit Offering. Nevertheless, sales of substantial amounts of such shares in the open market following the Unit Offering could adversely affect the prevailing market price of the Common Stock.

Upon completion of the Unit Offering and assuming no exercise of outstanding options and warrants to purchase Common Stock after March 31, 1997, the Company will have 10,279,763 outstanding shares of Common Stock. See "Description of Securities." The 1,500,000 shares of Common Stock which are

included in the Unit Offering (or 1,725,000 shares if the Overallotment Option is exercised in full) by the Company and, subject to certain conditions, up to 1,725,000 shares of Common Stock issuable upon exercise of the Warrants (including Warrants subject to the Overallotment Option, and, commencing approximately 12 months after the date of the Unit Offering Prospectus, up to 300,000 shares of Common Stock that are issuable upon exercise of the Representatives' Warrants (including the Warrants included therein), will, subject to any applicable state law restrictions on secondary trading, be freely tradeable without restriction under the Securities Act, except that any shares purchased by an "affiliate" of the Company (as that term is defined in Rule 144 under the Securities Act) will be subject to the resale limitations of Rule 144.

The remaining 8,779,763 shares of Common Stock are "restricted" shares within the meaning of Rule 144 under the Securities Act (the "Restricted Shares"). Of this number, approximately 1,358,055 shares not subject to lock-up agreements will be eligible for immediate resale without restriction under Rule 144(k) of the Securities Act. An additional 19,000 shares held for more than one but less than two years by shareholders who are not affiliates of the Company and who are not subject to lock-up agreements are eligible for sale under Rule 144 of the Securities Act, subject to the volume and other limitations thereunder. Upon expiration of lock-up agreements with the underwriters of the Unit Offering three months after the date of the Unit Offering Prospectus (or earlier with the consent of the underwriter), approximately 56,000 shares will be eligible for immediate resale subject to the limitations of Rule 144 and approximately 1,492,035 shares will be eligible for resale immediately without restriction pursuant to Rule 144(k). Upon expiration of lock-up agreements with the underwriters six months after the date of the Unit Offering Prospectus (or earlier with the consent of the underwriter), approximately 952,500 shares will be eligible for immediate resale subject to the limitations of Rule 144 and approximately 1,826,984 shares will be eligible for resale immediately without restriction pursuant to Rule 144(k). Upon expiration of lock-up agreements with the underwriters nine months after the date of the Unit Offering Prospectus (or earlier with the consent of the underwriter), approximately 1,199,000 shares will be eligible for immediate resale subject to the limitations of Rule 144 and approximately 2,402,933 shares will be eligible for resale immediately without restriction pursuant to Rule 144(k). Upon expiration of lock-up agreements with the underwriters one year after the date of the Unit Offering Prospectus (or earlier with the consent of the underwriter), approximately 5,943,911 shares will be eligible for immediate resale subject to the limitations of Rule 144 and approximately 2,835,352 shares will be eligible for resale immediately without restriction pursuant to Rule 144(k). As of the date of this Prospectus, options to purchase 1,126,886 shares of Common Stock have been granted under the Stock Incentive Plan, which shares, if acquired pursuant to the exercise of options, are subject to lock-up agreements which expire one year after the date of this Prospectus (or earlier with the consent of the underwriter).

In general, under Rule 144, as currently in effect, any person (or persons whose shares are aggregated) who has beneficially owned Restricted Shares for at least one year, is entitled to sell, within any three-month period, a number of shares that does not exceed the greater of (i) 1% of the then outstanding shares of the Company's Common Stock (approximately 102,798 shares immediately after this offering) or (ii) the average weekly trading volume of the Company's Common Stock in the Nasdaq National Market during the four calendar weeks immediately preceding the date on which notice of the sale is filed with the Securities and Exchange Commission. Sales pursuant to Rule 144 are also subject to certain requirements relating to manner of sale, notice and availability of current public information about the Company. A person who is not deemed to have been an affiliate of the Company at any time during the 90 days immediately preceding the sale and whose Restricted Shares have been fully-paid for two years since the later of the date they were acquired from the Company or the date they were acquired from an affiliate of the Company may sell such Restricted Shares under Rule 144(k) without regard to the limitations and requirements described above. Under Rule 701, shares privately issued under certain compensatory stock-based plans, such as the Stock Incentive Plan, may be resold under Rule 144 by non-affiliates, subject only to the manner of sale requirements, and by affiliates without regard to the one-year holding period

requirement, commencing 90 days after the Company becomes subject to certain periodic reporting requirements.

The remaining 3,569,030 shares have been registered in connection with the Rescission Offer but are subject to the Pledge Agreement which secures the payment of the Notes by the Company. These shares also are subject to a lock-up agreement with the Representatives for one year after the effective date of the Unit Offering.

Shortly after the Unit Offering, the Company intends to file a registration statement under the Securities Act covering shares of Common Stock reserved for issuance under the Company's outstanding stock options and Stock Incentive Plan (other than shares issued upon the exercise of options prior to the effective date of such registration statement). Based on the number of options outstanding and options and shares reserved for issuance, such registration statement would cover approximately 1,333,333 shares. Such registration statement will automatically become effective upon filing. All shares issuable under the Company's Stock Incentive Plan are subject to a six-month lock-up period following the date of the Unit Offering.

There has been no established public market for the Common Stock. No prediction can be made of the effect, if any, that sales of shares under Rule 144 or the availability of shares for sale will have on the market price of the Common Stock prevailing from time to time after the offering. The Company is unable to estimate the number of shares that may be sold in the public market under Rule 144, because such amount will depend on the trading volume in, and market price for, the Common Stock and other factors. Nevertheless, sales of substantial amounts of shares in the public market, or the perception that such sales could occur, could adversely affect the market price of the Common Stock of the Company.

### CERTAIN PROVISIONS OF THE COMPANY'S ARTICLES OF INCORPORATION AND BYLAWS

Certain provisions of the Company's Articles of Incorporation and Bylaws could make more difficult the acquisition of the Company by means of a tender offer, a proxy contest or otherwise and the removal of incumbent officers and directors. These provisions include authorization of the issuance of up to 2,000,000 shares of Preferred Stock, with such characteristics, and potential effects on the acquisition of the Company, as are described in "Preferred Stock" above. This provision is expected to discourage certain types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of the Company to negotiate first with the Company. The Company believes that the benefits of increased protection of the Company's potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure the Company outweigh the disadvantages of discouraging such proposals because, among other things, negotiation of such proposals could result in an improvement of their terms. See "Risk Factors--Anti-Takeover Effects of Certain Charter Provisions and Oregon Law."

### OREGON CONTROL SHARE AND BUSINESS COMBINATION STATUTES

Upon completion of this offering, the Company will become subject to the Oregon Control Share Act (the "Control Share Act"). The Control Share Act generally provides that a person (the "Acquiring Person") who acquires voting stock of an Oregon corporation in a transaction that results in the Acquiring Person holding more than 20%, 33 1/3% or 50% of the total voting power of the corporation (a "Control Share Acquisition") cannot vote the shares it acquires in the Control Share Acquisition ("control shares") unless voting rights are accorded to the control shares by (i) a majority of each voting group entitled to vote and (ii) the holders of a majority of the outstanding voting shares, excluding the control shares held by the Acquiring Person and shares held by the Company's officers and inside directors. The term "Acquiring Person" is broadly defined to include persons acting as a group. The Acquiring Person may, but is not required to, submit to the Company a statement setting forth certain information about the Acquiring Person and its plans with respect to the Company. The statement

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may also request that the Company 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 paid per share by the Acquiring Person for the control shares.

Upon completion of this offering, the Company will become subject to certain provision of the Oregon Business Corporation Act that govern business combinations between corporations and interested shareholders (the "Business Combination Act"). The Business Combination Act generally provides that if a person or entity acquires 15% or more of the voting stock of an Oregon corporation (an "Interested Shareholder"), 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 (a) a merger or plan of share exchange, (b) any sales, lease, mortgage or other disposition of 10% or more of the assets of the corporation and (c) certain transactions that result in the issuance of capital stock of the corporation to the Interested Shareholder. These restrictions do not apply if (i) 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 also officers and certain employee benefit plans), (ii) 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 (iii) 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 Shareholder) approve the transaction after the Interested Shareholder acquires 15% or more of the corporation's voting stock. See "Risk Factors--Anti-Takeover Effects of Certain Charter Provisions and Oregon Law."

## TRANSFER AGENT AND REGISTRAR

The Transfer Agent and Registrar for the Company's securities is ChaseMellon Shareholder Services.

SELECTED FINANCIAL DATA OF AGDG

	ΥE	YEAR ENDED DECEMBER 31,			TI	THREE MONT MARCH		
		1995		1996		1996		1997
						(UNAUE	ITEI	))
Statement of Operations Data: Interest revenue Expenses		9,593 4,104	Ş	7,343 3,115	Ş	1,624 895		2,001 797
Net income	\$ 	5,489	\$	4,228	\$ 	729	\$ 	1,204

	DEC	DECEMPED 21	MARCH 31			,	
	DEC	1996		1996			
	(UNAUDITED)					D)	
Balance Sheet Data:							
Working capital	\$	188,784	\$	187,986	\$	190,044	
Total assets		189,139		187,986		190,343	
Partners' capital		189,139		190,343		190,343	

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

### OVERVIEW

From inception in 1981, the partnership has devoted its resources primarily to contract for its research and development efforts in the field of antisense. The Partnership has had limited interest revenue and has had no revenues to date from the sale of products or other sources, and does not expect revenues from such sources for at least the next 12 months. The partnership expects to continue to earn small amounts of interest revenue for the foreseeable future.

### RESULTS OF OPERATIONS

THREE MONTHS ENDED MARCH 31, 1996 COMPARED WITH THREE MONTHS ENDED MARCH 31, 1997. The Partnership had interest revenues of \$1,624 and \$2,001 for the three month periods ended March 31, 1996 and March 31, 1997 respectively. The increase between the prior and current year periods was due primarily to fluctuations in the market interest rates paid on investments for the applicable time periods. Operating expenses were \$895 and \$797 for the three month periods ended March 31, 1997 respectively. The decrease in expenses was due primarily to savings on professional services.

YEAR ENDED DECEMBER 31, 1995 COMPARED TO YEAR ENDED DECEMBER 31, 1996. The Partnership had interest revenues of \$9,593 and \$7,343 for the years ended December 31, 1995 and December 31, 1996 respectively. Revenues for both time periods were derived from interest on certificates of deposit and short-term investments. The decrease between the prior and current year periods was due primarily to fluctuations in the market interest rates paid on such investments. Operating expenses were \$4,104 and \$3,115 for the years ended December 31, 1995 and 1996 respectively. The decrease in expenses was due to savings on professional services and a decrease in miscellaneous expenses.

### LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through private equity sales. Since 1992, the partnership has not actively engaged in fundraising, and currently exists primarily for the purpose of collecting revenues, if any, which arise under the terms of a Technology Transfer Agreement between AGDG and the Company.

If additional partnership units are issued in connection with this offering, the rights and returns of existing partners are not expected to be significantly impacted as payments from the Company connected with sales of therapeutic products will increase on a pro rata basis for each additional partnership interest issued, such that if all unit holders accept the rescission offer, the fees for the sales of therapeutic products will increase to approximately 5.23%. Fees related to diagnostic products under the Technology Transfer Agreement would remain at 2%.

## BUSINESS OF AGDG

The Anti-Gene Development Group was formed in 1981 under the Oregon Uniform Limited Partnership Act for the purpose of funding the development of and obtaining the proprietary rights to Anti-Genes. Prior to 1993, AGDG periodically contracted with the Company to develop the technologies while retaining the rights to the resultant technologies. Substantially all of the proceeds from sales of interests in AGDG and interest income were paid to the Company under the terms of these research and development contracts.

Sole management of AGDG is vested in the general partner. The general partner of AGDG is Dr. James Summerton, founder and Chairman and Chief Executive Officer of the Company, until January 1996. Dr. Summerton presently serves as President and Chief Scientific Officer of the Company. Dr. Summerton receives no fees or other remuneration for his management of AGDG.

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In February, 1993, to facilitate additional capital raising activities associated with the development of the technologies, AGDG and the Company entered into a Technology Transfer Agreement whereby effective May 19, 1993, AGDG conveyed all intellectual property in its control to the Company. In consideration of this transfer, the Company is obligated to pay to AGDG certain technology transfer fees arising from the sale of products incorporating the technologies.

During March, 1993, the Company offered all holders of interests in AGDG the opportunity to exchange their units of limited partnership interest for shares of the Common Stock of the Company at a ratio of 1,100 shares of Common Stock for each unit exchanged. The exchange ratio was determined based on historical perceptions by the partners of AGDG and shareholders of the Company as to the relative values of AGDG, but was not confirmed by financial analysis of any kind. The exchange offer was the subject of a fairness hearing conducted by the Oregon Department of Insurance and Finance on April 19, 1993, and after such hearing the Oregon Department of Insurance and Finance issued an order permitting the exchange offering to proceed.

Upon completion of the exchange offer and the technology transfer agreement, the partnership ceased active sales of partnership interests and no longer enters into research and development contracts with the Company. The partnership currently exists primarily for the purpose of collecting revenues, if any, which may arise under the term of a Technology Transfer Agreement between AGDG and the Company. There can be no assurance that the Company will successfully develop or commercialize the technologies which are the subject of the Technology Transfer Agreement. For a detailed statement of the risks associated with the Company, see "Risk Factors."

### MANAGEMENT OF AGDG

The General Partner of AGDG and his age are as follows:

NAME		AGE	POSITION			
James E. Summerton, Ph.D		52	General Partner			

JAMES E. SUMMERTON, PH.D. founded AGDG in 1981 and has served as its General Partner since that time. He has been President and Chief Scientific Officer of ANTIVIRALS Inc. since January 1996. He founded ANTIVIRALS in 1980 and was its Chairman and Chief Executive Officer until January 1996. He held the position of assistant professor of Biochemistry-Biophysics at Oregon State University from 1978 to 1980. He is the inventor or co-inventor on all of the Company's patents and pending applications. Dr. Summerton received a B.S. in Chemistry from Northern Arizona University and a Ph.D. from the University of Arizona. Dr. Summerton first conceived of the concept of sequence-specific gene-inactivation in 1969.

## EXECUTIVE COMPENSATION

The General Partner receives no remuneration.

### PRINCIPAL INTEREST HOLDERS OF AGDG

The following table sets forth certain information with respect to the beneficial ownership of the partnership's units of limited partnership interest, and as adjusted to give effect to the Rescission Offer. The information as to each person or entity has been furnished by such person or entity, and unless

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otherwise indicated, the persons named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable.

		PERCENT OF UNITS OUTSTANDING			
NAME AND ADDRESS OF BENEFICIAL OWNER	UNITS BENEFICIALLY OWNED(1)	BEFORE OFFERING	AFTER OFFERING(3)		
James E. Summerton, Ph.D.(2) Anti-gene Development Group 3107 NW Norwood Place Corvallis, OR 97330	1,476	79.5%	60.9%		

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- (1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Limited partnership units subject to options and warrants currently exercisable or convertible, or exercisable or convertible within 60 days of February 28, 1997 are deemed beneficially owned and outstanding for computing the percentage of the person holding such securities, but are not considered outstanding for computing the percentage of any other person.
- (2) Includes 52 units held by others over which Dr. Summerton exercises voting and investment power.
- (3) Assumes issuance of 568.67 units upon acceptance of the rescission offer by all eligible former exchange offer participants.

### DESCRIPTION OF SECURITIES OF AGDG

As of the date of this Prospectus, 1,856 units of limited partnership interest in AGDG were outstanding. If all Eligible Offerees who participated in the exchange offer tender their 625,537 shares and 568.67 units of limited partnership interest are issued therefor, 2,424.67 units of limited partnership interest will be outstanding.

The units represent limited partnership interests in the AGDG limited partnership. The liability of each limited partner of AGDG is limited to the amount of that partner's investment in the partnership, together with their interest in undistributed income, if any. Partnership units are nonassessable, and no additional contributions to the Partnership's capital may be required of the limited partners at any time by way of assessment.

The share of the profits and losses to which each partner is entitled is established by the Anti-Gene Development Group Certificate of Limited Partnership. Losses, up to the amount invested, are allocated yearly in direct proportion to the amount of capital each Partner has invested during that year, or during that phase if the phase is less than one year. Losses are calculated on a first-in first-out basis. Any additional losses are allocated pro rata to all partnership interests. Profits, if any, are distributed pro rata to all partnership interests.

There currently is no public trading market for units of interest in AGDG and AGDG does not anticipate that such a market will develop.

### LEGAL MATTERS

The validity of the Notes offered hereby will be passed upon for the Company by Ater Wynne Hewitt Dodson & Skerritt, LLP, Portland, Oregon.

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### EXPERTS

The financial statements of the Company as of December 31, 1996 and for each of the two years in the period ended December 31, 1996 appearing in this Prospectus have been audited by Arthur Andersen LLP, independent public accountants, as set forth in their reports thereon appearing elsewhere herein, and are included in reliance upon such reports given upon the authority of such firm as experts in accounting and auditing.

The information contained in "Risk Factors--Patents and Proprietary Rights" and in "Business-- Patents and Proprietary Rights" has been reviewed and approved by Dehlinger & Associates, Palo Alto, California, patent counsel to the Company, as experts in such matters, and is included in reliance upon their review and approval.

### ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission (the "Commission") a Registration Statement on Form SB-2 under the Securities Act with respect to the Rescission Offer, of which this Prospectus forms a part. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and its Common Stock, reference is made to the Registration Statement and such exhibits and schedules. Statements contained in this Prospectus as to the contents of any contract or other documents referred to are not necessarily complete and, in each instance, if such contract or document is filed as an exhibit to the Registration Statement, reference is made to the copy of such contract or document filed as an exhibit, each such statement being qualified in all respects by such reference to such exhibit. The Registration Statement and the exhibits and schedules thereto may be inspected without charge at the Commission's principal office in Washington, D.C., and copies of all or any part thereof may be obtained from the Public Reference Section of the Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, upon payment of certain fees prescribed by the Commission. The Commission also maintains a site on the World Wide Web that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. The address of such site is http://www.sec.gov.

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## ANTIVIRALS INC. INDEX TO FINANCIAL STATEMENTS

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### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Board of Directors and Shareholders of

### ANTIVIRALS INC.

We have audited the accompanying balance sheets of ANTIVIRALS INC. (an Oregon corporation in the development stage) as of December 31, 1995 and 1996, and the related statements of operations, shareholders' equity and cash flows for the years ended December 31, 1995 and 1996 and for the period from inception (July 22, 1980) to December 31, 1996. 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 generally accepted auditing standards. 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 ANTIVIRALS INC. as of December 31, 1995 and 1996, and the results of its operations and its cash flows for the years ended December 31, 1995 and 1996 and for the period from inception (July 22, 1980) to December 31, 1996, in conformity with generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and, at December 31, 1996, has a deficit accumulated during the development stage of \$12,425,483. In addition, as more fully discussed in Note 7 to the financial statements, the Company has filed with certain securities regulators a registration statement pertaining to a planned rescission offering for certain purchasers' equity securities because Company management cannot draw a conclusion with certainty that all applicable state and federal securities laws were complied with in all material respects in connection with the issuance of such securities. Such factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plan in regard to these matters is also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

ARTHUR ANDERSEN LLP

Portland, Oregon, March 10, 1997

# ASSETS

	DECEN	MARCH 31,	
	1995	1996	1997
			(UNAUDITED)
CURRENT ASSETS: Cash and cash equivalents Short-term securitiesavailable-for-sale	\$ 680,892 212,750	2 \$ 3,011,229 30,000	\$ 2,305,351
Other current assets	7,236	30,000 28,255	28,255
Total current assets	900,878	3,069,484	2,333,606
PROPERTY AND EQUIPMENT, at cost: Laboratory equipment Office equipment Leasehold improvements	677,728 181,803 1,464,603	738,160 187,248 1,464,603	779,851 187,248 1,478,249
LessAccumulated depreciation and amortization	(1,379,377	2,390,011 7) (1,858,359)	(1,980,045)
	944,757	531,652	465,303
PATENT COSTS, net DEFERRED OFFERING COSTS OTHER ASSETS	449,254  29,847	474,806 143,110 29,847	488,125 382,602 29,847
	\$ 2,324,736	\$ 4,248,899	\$ 3,699,483
LIABILITIES AND SHAREHOLDERS' EQUITY CURRENT LIABILITIES: Accounts payable Accrued payroll Deferred payments.	\$ 85,298 149,715 19,051	\$ 153,202 5 169,609 7,996	\$ 183,762 182,329 7,996
Total current liabilities	254,064	330,807	374,087
COMMON STOCK SUBJECT TO RESCISSION, \$.0001 par value, 1,292,973 issued and outstanding		3,121,965	
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; 5,816,838, 7,486,790 and 7,486,790 shares issued and outstanding in			
1995 and 1996, and March 31, 1997 (unaudited), respectively Additional paid-in capital Unrealized gain on available-for-sale securities Deficit accumulated during the development stage	582 9,189,496 96,750	13,220,861	
Total shareholders' (deficit) equity		3) 796,127	
	\$ 2,324,736	\$ 4,248,899	\$ 3,699,483

See accompanying notes.

# F-3

ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# STATEMENTS OF OPERATIONS

	YEAR ENDED DECEMBER 31,		JULY 22, 1980 (INCEPTION) TO DECEMBER 31,	THREE MON MARCH	JULY 22, 1980 (INCEPTION) TO		
	1995	1996	1996	1996	1997	MARCH 31, 1997	
				(UNAUDITED)	(UNAUDITED)	(UNAUDITED)	
REVENUES, from grants and research contracts	\$ 82,500	\$ 27,227	\$ 689,497	\$ 	\$ 	\$ 689,497	
OPERATING EXPENSES: Research and development General and administrative	2,097,796 609,723	1,729,554 613,811	9,011,574 4,549,582	349,565 75,321	451,723 170,028	.,, .	

Total operating expenses	2,707,519		13,561,156			14,182,907
OTHER INCOME	68,133	., .	446,176		.,	
NET LOSS	\$ (2,556,886)					
NET LOSS PER SHARE	\$ (0.37)	\$ (0.25)		\$ (0.04)	\$ (0.07)	
SHARES USED IN PER SHARE CALCULATION	6,982,459	8,233,548		7,109,810	8,233,548	

See accompanying notes.

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# STATEMENTS OF SHAREHOLDERS' EQUITY

	COMMON STOCK			ADDITIONAL PAID-IN	UNREALIZED GAIN ON AVAILABLE- FOR-SALE	DEFICIT ACCUMULATED DURING THE DEVELOPMENT	
	UNITS	SHARES AMOUNT		CAPITAL	SECURITIES	STAGE	
BALANCE AT JULY 22, 1980 (inception) No activity			\$	\$	\$	\$	
BALANCE AT OCTOBER 31, 1980 Issuance of partnership units and common stock in October 1981 for equipment and							
supplies valued at \$3,500 and technology Issuance of partnership units and common	1,000	1,666,667	167	3,333			
stock for cash, \$500 per unit Issuance of partnership units for consulting	150	250,000	25	75,055			
services, \$500 per unit Issuance of common stock in connection with	10			5,000			
financing agreement Net loss		33,333	3	7		(9,224)	
BALANCE AT OCTOBER 31, 1981 Issuance of common stock for consulting	1,160	1,950,000	195	83,395		(9,224)	
services Net loss		54,600 	5	11		 (57,962)	
BALANCE AT OCTOBER 31, 1982	1,160	2,004,600	200	83,406		(67,186)	
Issuance of partnership units and common stock for cash, \$550 per unit Issuance of common stock for consulting	60	100,000	10	33,020			
services		21,733	2	5		 (27,475)	
BALANCE AT OCTOBER 31, 1983	1,220	2,126,333	212	116,431		(94,661)	
Issuance of partnership units and common stock for cash, \$600 per unit Issuance of partnership units and common	10	16,667	2	6,003			
stock for consulting services and \$1,000 cash, \$550 to \$600 per unit Issuance of common stock for consulting	20	16,667	2	11,503			
services Issuance of common stock for donation to		2,533		1			
charitable organizationsNet loss		100,000	10	20		(21,463)	
BALANCE AT OCTOBER 31, 1984	1,250	2,262,200	226	133,958		(116,124)	
Issuance of partnership units and common stock in December 1984 for technology	1,000	166,667	16	(16)			
Issuance of partnership units and common stock for cash, \$50 to \$100 per unit	460	78,333	8	23,515			
Issuance of partnership units for cash, \$50 to \$550 per unit	140			17,000			
Issuance of common stock for consulting services		6,733	1	1			
Net loss						(8,469)	
BALANCE AT OCTOBER 31, 1985 Issuance of partnership units and common	2,850	2,513,933	251	174,458		(124,593)	
stock for cash, \$50 to \$500 per unit Issuance of common stock for consulting	90	105,000	11	31,521			
services Net loss		8,500	1	1		 (32,353)	
BALANCE AT OCTOBER 31, 1986 Issuance of partnership units and common	2,940	2,627,433	263	205,980		(156,946)	
stock for cash, \$500 per unit Issuance of partnership units and warrants to purchase 400,000 shares of common stock for	20	33,333	3	10,007			
cash, \$500 to \$2,500 per unit Issuance of common stock for consulting	80			100,000			
services		28,533	3	6			

Net loss					 (71,616)
BALANCE AT OCTOBER 31, 1987	3,040	2,689,299	269	315,993	 (228,562)

	TOTAL SHAREHOLDERS' EQUITY
BALANCE AT JULY 22, 1980 (inception) No activity	\$
BALANCE AT OCTOBER 31, 1980 Issuance of partnership units and common stock in October 1981 for equipment and	
stock in October 1981 for equipment and supplies valued at \$3,500 and technology Issuance of partnership units and common	3,500
stock for cash, \$500 per unit Issuance of partnership units for consulting	75,080
services, \$500 per unit Issuance of common stock in connection with	5,000
financing agreement Net loss	10 (9,224)
BALANCE AT OCTOBER 31, 1981 Issuance of common stock for consulting	74,366
services	16 (57,962)
BALANCE AT OCTOBER 31, 1982	16,420
Issuance of partnership units and common stock for cash, \$550 per unit	33,030
Issuance of common stock for consulting services	7
Net loss	(27,475)
BALANCE AT OCTOBER 31, 1983 Issuance of partnership units and common stock for cash, \$600 per unit	21,982 6,005
Issuance of partnership units and common stock for consulting services and \$1,000	0,000
cash, \$550 to \$600 per unit Issuance of common stock for consulting	11,505
services Issuance of common stock for donation to	1
charitable organizations Net loss	30 (21,463)
BALANCE AT OCTOBER 31, 1984 Issuance of partnership units and common	18,060
stock in December 1984 for technology Issuance of partnership units and common	
stock for cash, \$50 to \$100 per unit Issuance of partnership units for cash, \$50	23,523
to \$550 per unit Issuance of common stock for consulting	17,000
services Net loss	(8,469)
BALANCE AT OCTOBER 31, 1985 Issuance of partnership units and common	50,116
stock for cash, \$50 to \$500 per unit Issuance of common stock for consulting	31,532
services Net loss	2 (32,353)
BALANCE AT OCTOBER 31, 1986 Issuance of partnership units and common	49,297
stock for cash, \$500 per units and warrants to	10,010
purchase 400,000 shares of common stock for cash, \$500 to \$2,500 per unit	100,000
Issuance of common stock for consulting services	9
Net loss	(71,616)
BALANCE AT OCTOBER 31, 1987	87,700

See accompanying notes.

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## ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# STATEMENTS OF SHAREHOLDERS' EQUITY

	COMMON STOCK PARTNERSHIP					ITIONAL AID-IN	UNREALIZED GAIN ON AVAILABLE-FOR-	DEFICIT ACCUMULATED DURING THE DEVELOPMENT		
	UNITS	SHARES	AMOUN	Т	CAPITAL		SALE SECURITIES		STAGE	
BALANCE AT OCTOBER 31, 1987	3,040	2,689,299	Ş	269	Ş	315,993		Ş	(228,562)	
Issuance of partnership units and common stock for cash, \$500 per unit	100	166,667		17		50,033				

Issuance of partnership units and common					
stock for cash, \$1,250 per unit Issuance of partnership units for cash, \$50	20	33,333	3	25,007	 
per unit	20			1,000	 
Issuance of partnership units and warrants to purchase 400,000 shares of common for	20			1,000	
cash, \$1,250 per unit Compensation expense related to issuance of	80			100,000	 
warrants for partnership units				10,000	 
Issuance of common stock for consulting services and employee compensation		47,014	5	9	 
Net loss		47,014		5	 (266,194)
Act 1000111111111111111111111111111111111					 (2007201)
BALANCE AT OCTOBER 31, 1988	3,260	2,936,313	294	502,042	 (494,756)
Exercise of warrants for common stock		141,667	14	28	 
Issuance of partnership units and common					
stock for cash, \$1,250 per unit	10	16,667	1	12,504	 
Issuance of partnership units and warrants					
to purchase 800,000 shares of common stock					
for cash, \$1,250 per unit	160			200,000	 
Issuance of common stock for consulting					
services and employee compensation		17,733	2	4	 
Compensation expense related to issuance of warrants for partnership units				2,500	 
Net loss				2,500	 (243,926)
Net 1000					 (213, 320)
BALANCE AT OCTOBER 31, 1989	3,430	3,112,380	311	717,078	 (738,682)
Exercise of warrants for common stock		33,333	3	7	 
Issuance of partnership units and common					
stock for cash, \$1,250 per unit	74	123,334	12	92,525	 
Issuance of partnership unit for cash,					
\$5,000 per unit	1			5,000	 
Issuance of common stock for cash, \$4.56 per					
share		1,100		5,000	 
Issuance of partnership units and warrants					
to purchase 200,000 shares of common stock					
for cash, \$1,250 per unit	40			50,000	 
Issuance of common stock for consulting		11 400	2	51 630	
services and employee compensation Compensation expense related to issuance of		11,400	2	51,678	 
warrants for partnership units				40,000	 
Exercise of warrant for partnership units	10			12,500	 
Net loss					 (351,772)
BALANCE AT OCTOBER 31, 1990 Issuance of partnership units for cash,	3,555	3,281,547	328	973,788	 (1,090,454)
\$5,000 per unit	23.5			117,500	 
Exercise of warrants for partnership unit					
and common stock	1	1,100		1,250	 
Issuance of common stock for cash, \$4.56 per					
share		24,750	3	112,505	 
Compensation expense related to issuance of				1 500	
warrants for common stock				1,520	 
Issuance of common stock for consulting		1,657		7,547	
services, \$4.56 per share Common stock subject to rescission		(7,127)	(1)	(32,499)	 
Net loss		(/,±∠/)	(+)	(32,499)	 (274,844)
					 (2/4,044)
BALANCE AT OCTOBER 31, 1991	3,579.5	3,301,927	330	1,181,611	 (1,365,298)

BALANCE AT OCTOBER 31, 1987\$ 87,700Issuance of partnership units and common stock for cash, \$1,250 per unit50,050Issuance of partnership units of cash, \$5025,010Issuance of partnership units of cash, \$501,000Issuance of partnership units and warrants to purchase 400,000 shares of common for cash, \$1,250 per unit100,000Compensation expense related to issuance of warrants for partnership units and warrants issuance of partnership units and common stock for cash, \$1,250 per unit10,000BALANCE AT OCTOBER 31, 1988 Issuance of partnership units and warrants to purchase 800,000 shares of common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$1,250 per unit Issuance of partnership units and common stock for cash, \$4,250(21,293)BALANCE AT OCTOBER 31, 1989 to purchase 200,000 shares of common stock for cash, \$1,250 per unit Issuance of partnership units and warrants to purchase 200,000 shares of common stock for cash, \$1,250 per unit Issuance of partnership units and warrants to purchase 200,000 shares of common stock for cash, \$1,250 per unit Issuance of partnership units and warrants to purchase 200,000 shares of common stock for cash, \$1,250 per unit Issuance of partnership uni		TOTAL SHAREHOLDERS' EQUITY
stock for cash, \$500 per unit		\$ 87,700
stock for cash, \$1,250 per unit	stock for cash, \$500 per unit	50,050
Issuance of partnership units and warrants to purchase 400,000 shares of common for cash, \$1,250 per unit	stock for cash, \$1,250 per unit	25,010
Compensation expense related to issuance of warrants for partnership units	Issuance of partnership units and warrants to purchase 400,000 shares of common for	
Issuance of common stock for consulting services and employee compensation		100,000
Net loss(226,194)BALANCE AT OCTOBER 31, 1988		10,000
BALANCE AT OCTOBER 31, 1988		
Exercise of warrants for common stock42Issuance of partnership units and common stock for cash, \$1,250 per unit		
Issuance of partnership units and common stock for cash, \$1,250 per unit		
stock for cash, \$1,250 per unit		42
for cash, \$1,250 per unit200,000Issuance of common stock for consulting services and employee compensation6Compensation expense related to issuance of warrants for partnership units2,500Net loss	stock for cash, \$1,250 per unit Issuance of partnership units and warrants	
services and employee compensation	for cash, \$1,250 per unit	
warrants for partnership units	services and employee compensation	6
BALANCE AT OCTOBER 31, 1989		2,500
BALANCE AT OCTOBER 31, 1989	Net loss	
Exercise of warrants for common stock	BALANCE AT OCTOBER 31, 1989	
stock for cash, \$1,250 per unit	Exercise of warrants for common stock	
\$5,000 per unit		92,537
share	\$5,000 per unit	5,000
for cash, \$1,250 per unit	share Issuance of partnership units and warrants	5,000
services and employee compensation	for cash, \$1,250 per unit	50,000
warrants for partnership units	services and employee compensation	51,680
Net loss	warrants for partnership units	40,000
BALANCE AT OCTOBER 31, 1990		
Issuance of partnership units for cash, \$5,000 per unit	Net loss	
\$5,000 per unit 117,500 Exercise of warrants for partnership unit		(116,338)
	\$5,000 per unit	117,500
		1,250

Issuance of common stock for cash, \$4.56 per share	112,508
Compensation expense related to issuance of warrants for common stock	1,520
Issuance of common stock for consulting services, \$4.56 per share	7,547
Common stock subject to rescission Net loss.	(32,500)
BALANCE AT OCTOBER 31, 1991	(183,357)

# See accompanying notes.

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# STATEMENTS OF SHAREHOLDERS' EQUITY (CONTINUED)

	PARTNERSHIP	COMMON	STOCK	ADDITIONAL PAID-IN	UNREALIZED GAIN ON AVAILABLE- FOR-SALE
	UNITS	SHARES	AMOUNT	CAPITAL	SECURITIES
BALANCE AT OCTOBER 31, 1991 Issuance of partnership units for cash, \$5,000 per	3,579.5	3,301,927	\$ 330	\$ 1,181,611	
unit Issuance of common stock for cash, \$4.56 per share Compensation expense related to issuance of warrants for	15.5	17,050	2	77,500 77,498	
common stock Common stock subject to rescission Net loss		(32,486)	(3)	7,500 (148,135) 	
BALANCE AT DECEMBER 31, 1991 Issuance of partnership units for cash, \$5,000 per	3,595	3,286,491	329	1,195,974	
unit Exercise of warrants for partnership units and common	30.5			152,500	
stock Conversion of debt into common stock and partnership	22	2,200		28,750	
units Issuance of common stock for cash, \$4.56 per share Issuance of common stock for consulting services, \$4.56	9	9,634 868,906	1 87	87,859 3,954,625	
per share Compensation expense related to issuance of warrants for		22,872	2	104,167	
common stock and partnership units Common stock subject to rescission Net loss		(410,099) 	(41)	262,833 (1,870,008) 	
BALANCE AT DECEMBER 31, 1992 Exercise of warrants for partnership units	3,656.5 9	3,780,004	378	3,916,700 4,500	
Issuance of common stock in exchange for partnership units	(1,809.5)	1,632,950	163	(163)	
technology Issuance of common stock for cash and short-term	(1,856)			(176,642)	
investments, \$4.95 per share Exercise of warrants for common stock		507,084 3,844	50 1	2,510,014 9,999	
Common stock subject to rescission Net loss		(808,902)	(81)	(901,119)	
BALANCE AT DECEMBER 31, 1993 Issuance of common stock for cash, \$4.95 per share		5,114,980 565,216	511 57	5,363,289 2,797,761	
Exercise of warrants for common stock Issuance of common stock for consulting services, \$4.95		24,667	2	122,098	
per share Unrealized gain on available-for-sale securities		151		749	 61,000
Common stock subject to rescission Net loss		(34,359)	(3)	(170,075)	
BALANCE AT DECEMBER 31, 1994 Issuance of common stock for cash, \$6.00 per share Compensation expense related to issuance of warrants for		5,670,655 146,183	567 15	8,113,822 862,674	61,000
common stock Unrealized gain on available-for-sale securities				213,000	 35,750
Net loss					
BALANCE AT DECEMBER 31, 1995 Exercise of warrants for common stock		5,816,838 957,452 712,500	582 96 71	9,189,496 (96)	96,750
Issuance of common stock for cash, \$6.00 per share Liquidation of available-for-sale securities Net loss		712,500	/1	4,031,461	(96,750) 
BALANCE AT DECEMBER 31, 1996		7,486,790	\$ 749	\$13,220,861	
Net Loss					
BALANCE AT MARCH 31, 1997 (UNAUDITED)		7,486,790	\$ 749	\$13,220,861	\$

	DURING THE DEVELOPMENT STAGE	TOTAL SHAREHOLDERS' EQUITY
BALANCE AT OCTOBER 31, 1991 Issuance of partnership units for cash, \$5,000 per	\$ (1,365,298)	\$ (183,357)
unit Issuance of common stock for cash, \$4.56 per share Compensation expense related to issuance of warrants for		77,500 77,500
common stock Common stock subject to rescission Net loss	 (91,588)	7,500 (148,138) (91,588)
BALANCE AT DECEMBER 31, 1991	(1,456,886)	(260,583)
Issuance of partnership units for cash, \$5,000 per unit		152,500
Exercise of warrants for partnership units and common stock		28,750
Conversion of debt into common stock and partnership units Issuance of common stock for cash, \$4.56 per share Issuance of common stock for consulting services, \$4.56		87,860 3,954,712
per share		104,169
common stock and partnership units Common stock subject to rescission		262,833 (1,870,049) (1,731,138)
Net loss		
BALANCE AT DECEMBER 31, 1992 Exercise of warrants for partnership units Issuance of common stock in exchange for partnership	(3,188,024) 	729,054 4,500
units		
technology Issuance of common stock for cash and short-term		(176,642)
investments, \$4.95 per share Exercise of warrants for common stock Common stock subject to rescission Net loss	  (2,346,939)	2,510,064 10,000 (901,200) (2,346,939)
BALANCE AT DECEMBER 31, 1993 Issuance of common stock for cash, \$4.95 per share Exercise of warrants for common stock Issuance of common stock for consulting services, \$4.95		(171,163) 2,797,818 122,100
per share Unrealized gain on available-for-sale securities Common stock subject to rescission		749 61,000 (170,078)
Net loss		(2,246,272)
BALANCE AT DECEMBER 31, 1994 Issuance of common stock for cash, \$6.00 per share Compensation expense related to issuance of warrants for		
common stock Unrealized gain on available-for-sale securities		213,000 35,750 (2,556,886)
Net loss		
BALANCE AT DECEMBER 31, 1995 Exercise of warrants for common stock		
Issuance of common stock for cash, \$6.00 per share Liquidation of available-for-sale securities Net loss		4,031,532 (96,750) (2,087,362)
BALANCE AT DECEMBER 31, 1996	\$(12,425,483)	\$ 796,127
Net Loss	(592,696)	(592,696)
BALANCE AT MARCH 31, 1997 (UNAUDITED)	\$(13,018,179)	

See accompanying notes.

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ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# STATEMENTS OF CASH FLOWS

AR ENDED DE	ECEMBER 31,	FOR THE PERIOD JULY 22, 1980 (INCEPTION) TO			
1995	1996	DECEMBER 31, 1996			
			THREE MONTHS	ENDED MARCH	FOR THE
			31	,	PERIOD JULY
					22, 1980
			1996	1997	(INCEPTION)
					TO MARCH 31,
					1997
			(UNAUDITED)	(UNAUDITED)	
					(UNAUDITED)
			(UNAUDITED)	(UNAUDITED)	

Net loss Adjustments to reconcile net loss to net cash used in operating activities	\$(2,556,886)	\$(2,087,362)	\$ (12,425,483)	Ş	(254,247)	\$ (592,696)	\$(13,018,179)
Depreciation and amortization	503,340	520,300	2,061,438		129,157	132,016	2,193,454
Realized gain on sale of short-term investments available for sale Compensation expense on issuance of common stock and partnership		(96,750)	(96,750)		(96,750)		(96,750)
units Compensation expense on issuance of warrants to purchase common stock			182,392				182,392
or partnership units Conversion of interest accrued to	213,000		562,353				562,353
common stock Changes in operating assets and liabilities: Decrease (increase) in other			7,860				7,860
current assets Increase in other assets Net increase in accounts payable, accrued payroll and deferred	8,645	(21,019)	(28,255) (45,191)		(8,791)		(28,255) (45,191)
payments	53,318	76,743	334,570		(105,381)	43,280	377,850
Net cash used in operating activities	(1,778,583)	(1,608,088)	(9,447,066)		(336,012)	(417,400)	(9,864,466)
CASH FLOWS FROM INVESTING ACTIVITIES: Proceeds from sale or redemption of short-term investments Purchase of property and equipment Patent costs	15,000 (90,594) (177,989)	(65,877)	217,750 (2,413,356) (642,959)		212,750  (12,668)	30,000 (55,337) (23,649)	
Net cash (used in) provided by investing activities	(253,583)	50,003	(2,838,565)		200,082	(48,986)	(2,887,551)
CASH FLOWS FROM FINANCING ACTIVITIES: Proceeds from sale of common stock and partnership units	862,689	4,031,532	15,536,612				15,536,612
assets Issuance of convertible debt			(176,642) 80,000				(176,642) 80,000
Deferred offering costs		(143,110)	(143,110)			(239,492)	
Net cash provided by (used in) financing activities	862,689	3,888,422	15,296,860			(239,492)	15,057,368
(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(1,169,477)	2,330,337	3,011,229		(135,930)	(705,878)	2,305,351
CASH AND CASH EQUIVALENTS: Beginning of period	1,850,369	680,892			680,892	3,011,229	
End of period	\$ 680,892	\$ 3,011,229	\$ 3,011,229	\$	544,962	\$ 2,305,351	\$ 2,305,351

See accompanying notes.

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

## NOTES TO FINANCIAL STATEMENTS

## 1. ORGANIZATION AND NATURE OF BUSINESS:

ANTIVIRALS INC. (the Company) was incorporated in the State of Oregon on July 22, 1980. The mission of the Company is to develop and commercialize improved therapeutic products based upon antisense and drug delivery technology.

Through May 1993, the financial statements include 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 or warrants to purchase 1,100 shares of common stock or warrants to purchase 325 partnership units for warrants to purchase 357,500 shares of common stock. 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 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.

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.

On October 3, 1996, the Board of Directors authorized management of the Company to file a registration statement with the SEC offering to the public 1,500,000 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.

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

1. ORGANIZATION AND NATURE OF BUSINESS: (CONTINUED) The Units will separate immediately following issuance and thereafter the common stock and warrants that make up the Units will trade only as separate securities.

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 will continue 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.

The Company is in the development stage. Since its inception in 1980 through December 31, 1996, the Company has incurred losses of approximately \$12.4 million, substantially all of which resulted from expenditures related to research and development and general and administrative expenses. 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 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.

# SHORT-TERM SECURITIES--AVAILABLE-FOR-SALE

In January 1994, the Company adopted Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities" (SFAS 115). In accordance with

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED) SFAS 115, 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 approximated cost at December 31, 1996 and exceeded cost by \$96,750 at December 31, 1995. 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 state government obligations with a cost, which approximated fair market value, of \$30,000 at December 31, 1995 and 1996 and common stock with a fair value of \$182,750 at December 31, 1995.

## 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. Total accumulated amortization at December 31, 1995 and 1996 was \$127,000 and \$168,000, respectively.

#### 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

Net loss per share is calculated using the weighted average number of shares outstanding. Common equivalent shares (stock options and warrants) are excluded from the computation as their effect is antidilutive, except that, pursuant to the Securities and Exchange Commission ("SEC") Staff Accounting Bulletins, common and common equivalent shares issued during the period commencing 12 months prior to the initial filing of a proposed public offering at prices below the public offering price have been considered in the calculation as if they were outstanding for all periods presented (using the treasury stock method for stock options and warrants at the estimated initial public offering price).

# UNAUDITED INTERIM FINANCIAL INFORMATION

The unaudited financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and note disclosures normally included in

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

annual financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to those rules and regulations, although the Company believes that the disclosures made are adequate to make the information presented not misleading. These unaudited financial statements reflect, in the opinion of management, all adjustments (which include only normal recurring adjustments) necessary to fairly present the results of operations, changes in cash flows and financial position as of and the for periods presented. These unaudited financial statements should be read in conjunction with the audited financial statements and related notes thereto, appearing elsewhere herein. The results of the interim periods presented are not necessarily indicative of results to be expected for a full year.

## 3. SHAREHOLDERS' EQUITY:

At December 31, 1996, the Company had one stock option plan, the 1992 Stock Incentive Plan (the Plan) which 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 Company has reserved 1,333,333 shares of common stock for issuance under the Plan. Options issued under the Plan generally vest ratably over four years and expire five to ten years from the date of grant. During 1995, the Financial Accounting Standards Board 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 and, if presented, earnings per share, as if the fair value based method of 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 1995 and 1996 using the Black-Scholes options pricing model as prescribed by SFAS 123 using the following weighted average assumptions for grants:

Risk-free interest rate	6%
Expected dividend yield	0%
	4 - 5
Expected lives	Years
Expected volatility	70%

Using the Black-Scholes methodology, the total value of options granted during 1995 and 1996 was \$431,582 and \$148,866, 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 1995 and 1996 was \$3.14 and \$3.72, respectively. The value of warrants granted in 1995 and 1996 have not been considered as such warrant grants related to the raising of additional equity.

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## ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

## 3. SHAREHOLDERS' EQUITY: (CONTINUED)

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:

		F	DR	THE YEAR END	ΕD	DECEMBER 31,		
	1995				1996			
	_A	S REPORTED		PRO FORMA	_A	S REPORTED		PRO FORMA
Net loss Net loss per share								

The effects of applying SFAS 123 in this pro forma disclosure are not indicative of future amounts. SFAS 123 does not apply to awards prior to January 1, 1995, and additional awards are anticipated in future years.

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

FOR THE YEAR ENDED DECEMBER 31,

#### 0.05

	SHARES		D AVERAGE SE PRICE	SHARES		D AVERAGE SE PRICE
Options outstanding at beginning of year Granted Exercised	977,148 137,400	Ş	4.65	1,109,828 40,000 	Ş	4.71
Canceled Options outstanding at end of year	4,720		4.95  4.71	26,001		4.98
Exercisable at end of year	804,181	Ş	4.67	960,495	Ş	4.61

The following table sets forth the exercise price range, number of shares outstanding at December 31, 1996, weighted average remaining contractual life, weighted average exercise price, number of exercisable shares and weighted average exercise price of exercisable options by groups of similar price and grant date:

# OPTIONS OUTSTANDING

	OUTSTANDING SHARES AT	WEIGHTED AVERAGE REMAINING		OPTIONS	EXERCISABLE
EXERCISE PRICE	DECEMBER 31, 1996	CONTRACTUAL LIFE (YEARS)	WEIGHTED AVERAGE EXERCISE PRICE	EXERCISABLE OPTIONS	WEIGHTED AVERAGE EXERCISE PRISE
\$4.56	790,901	5.45	\$ 4.56	724,236	\$ 4.56
4.95	183,679	7.46	4.95	127,012	4.95
5.01	99,800	0.42	5.01	99,800	5.01
6.00	49,447	7.61	6.00	9,447	6.00

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

# 3. SHAREHOLDERS' EQUITY: (CONTINUED)

The Company has also issued warrants for the purchase of common stock in conjunction with financing and compensation arrangements. A summary of the status of the Company's warrants and changes are presented in the following table:

	YEAR ENDED DECEMBER 31,						
		1995	1996				
	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE			
Warrants outstanding at beginning of year Granted Exercised Canceled	1,324,733 38,000  38,000	\$ 1.02 0.33  0.33	1,324,733 60,201 957,500 				
Warrants outstanding at end of year	1,324,733	1.02	427,434	4.43			
Exercisable at end of year	1,299,736	\$ 1.04 	402,437	\$ 4.69			

The following table sets forth the exercise price range, number of shares outstanding at December 31, 1996, weighted average remaining contractual life, weighted average exercise price, number of exercisable shares and weighted average exercise price of exercisable warrants by groups of similar price and grant date:

		WARRAN	ITS OUTSTANDING			
		OUTSTANDING SHARES AT	WEIGHTED AVERAGE REMAINING		WARRANTS	EXERCISABLE
Ε>	KERCISE	DECEMBER 31,	CONTRACTUAL	WEIGHTED AVERAGE	EXERCISABLE	WEIGHTED AVERAGE
	PRICE	1996	LIFE (YEARS)	EXERCISE PRICE	WARRANTS	EXERCISE PRISE
Ş	0.0003	124,799	Varies	\$ 0.0003	99,802	\$ 0.0003
	1.14	22,000	Varies	1.14	22,000	1.14
	4.56	1,100	5.75	4.56	1,100	4.56
	6.00	219,334	Varies	6.00	219,334	6.00
	9.00	60,201	Varies	9.00	60,201	9.00

#### 4. INCOME TAXES:

At December 31, 1995 and 1996, the Company had federal and state tax net operating loss carryforwards of approximately \$7,731,000 and \$9,410,000, 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 and state carryforwards will begin to expire in 1997 and 2008, respectively, if not otherwise used. The Internal Revenue Code rules under Section 382 could limit the future use of these losses based on ownership changes in the value of the Company's stock.

The Company had a net deferred tax asset of \$3,808,000 and \$4,660,000 at December 31, 1995 and 1996, 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

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

## NOTES TO FINANCIAL STATEMENTS (CONTINUED)

#### 4. INCOME TAXES: (CONTINUED)

increase of approximately \$1,195,000 and \$852,000 for the years ended December 31, 1995 and 1996, 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, 1995, is as follows:

	DEFERRED TAX ASSET	DEFERRED TAX LIABILITY	TOTAL
Net operating loss carryforwards	\$3,092,000	\$	\$ 3,092,000
Accrued expenses	108,000		108,000
Depreciation	298,000		298,000
Research and development tax credit	490,000		490,000
Patent costs		(180,000)	(180,000)
	\$3,988,000	\$ (180,000)	3,808,000
Valuation allowance			(3,808,000)

An analysis of the deferred tax assets and liabilities as of December 31, 1996, is as follows:

	DEFERRED TAX ASSET 	DEFERRED TAX LIABILITY	TOTAL	
Net operating loss carryforwards Accrued expenses Depreciation Research and development tax credit Patent costs	\$3,764,000 23,000 403,000 660,000  \$4,850,000	\$  (190,000) \$ (190,000)		)00 )00 )00 )00)
Valuation allowance			(4,660,0 \$	)00)

#### 5. LEASE OBLIGATIONS:

The Company leases office and laboratory facilities under various noncancelable operating leases through December 1997. Rent expense under these leases was \$168,000 and \$193,000 for the years ended December 31, 1995 and 1996, respectively, and \$835,000 for the period from July 22, 1980 through December 31, 1996.

In September 1996, the Company leased additional laboratory facilities and extended the lease on its existing laboratory facilities through 2004. At December 31, 1996, the aggregate noncancelable future minimum payments under these leases were \$288,000, \$273,000, \$258,000, \$266,000 and \$274,000 for the years ended December 31, 1997, 1998, 1999, 2000 and 2001, respectively, and \$871,000 thereafter.

# 6. RELATED PARTY TRANSACTIONS:

The Company paid \$8,000, \$12,000 and \$233,000 to certain nonemployee directors for financial consulting, scientific research services and reimbursement for out-of-pocket costs of attending Board of

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# ANTIVIRALS INC. (A DEVELOPMENT STAGE COMPANY)

#### NOTES TO FINANCIAL STATEMENTS (CONTINUED)

6. RELATED PARTY TRANSACTIONS: (CONTINUED) Director meetings during the years ended December 31, 1995 and 1996, and the period from July 22, 1980 through December 31, 1996, respectively.

# 7. SUBSEQUENT EVENTS:

On January 20, 1997, AGDG and the Company amended the Technology Transfer Agreement to reduce the Technology Fees arising from the sale of diagnostic products from 4.05% to 2% and to remove the \$200 million exemption with respect to sales of such diagnostic products. The Company also granted to AGDG a royalty-bearing license to make, use and sell small quantities of product derived from the Intellectual Property for research purposes only.

In 1997, as a condition to its planned initial public offering, the Company intends to offer 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. If all such offerees elect to rescind their purchases, the Company will be required to pay these shareholders \$3,121,965 and 568.67 units of limited partnership interests in AGDG, plus statutory interest. To the extent these shareholders accept the rescission offer, the Company will use up to \$1,500,000 of its cash resources to repurchase the shares. If any additional consideration is required to repurchase the shares, the Company will issue unsecured promissory notes to the shareholders on a pro rata basis. Such notes will bear interest at 9% per annum and mature between 18 and 36 months. If additional Partnership units are issued, the fees arising from the sale of therapeutic products will be adjusted on a pro rata basis, such that if all Partnership unit holders accept the rescission offer, the fees for sales of therapeutic products will increase to approximately 5.25%. Fees related to diagnostic products under such a scenario would remain at 2%. The Company believes that its potential exposure to litigation for possible past violations of securities laws will be effectively eliminated by this rescission offer. All periods presented have been restated to reflect the amount of common stock subject to the rescission offer outside of shareholders' equity.

The Company estimates that the total amount of its obligation for interest to rescinding shareholders could aggregate approximately \$2,129,000 if all eligible shareholders accepted the rescission offer. Because of the contingent nature of such liability and because the ultimate amount to be refunded is not presently known, the potential interest liability has not been accrued but will be recorded as an expense of the Company if and when the amount becomes an actual liability.

The rescission offer will not be made to holders of 22,021 shares of common stock in Florida as state securities laws do not permit such offerings. The rescission offer will also not be made to holders of 192,603 shares of common stock who reside in California and Nevada because the Company believes its potential liability to these holders has been eliminated by the running of applicable statute of limitations. If all the shareholders in Florida, Nevada and California were to successfully assert claims against the Company, the Company would be required to pay these holders approximately \$319,000 and 55 units of limited partnership interests in AGDG, plus \$237,000 in statutory interest. Since no rescission offer has been made to these shareholders and because of the contingent nature of such obligations, the potential liability has not been reflected in the accompanying financial statements.

The Company's cash flow and its financial position could be materially affected by the results of the rescission offer. The financial statements do not include any adjustments that might result from the outcome of the rescission offer.

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# ANTI-GENE DEVELOPMENT GROUP INDEX TO FINANCIAL STATEMENTS

R

eport of Independent Public Accountants	F-18
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Statements of Partners' Equity	F-21
Statements of Cash Flows	F-22
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#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Partners of ANTI-GENE DEVELOPMENT GROUP:

We have audited the accompanying balance sheet of ANTI-GENE DEVELOPMENT GROUP (an Oregon limited partnership) as of December 31, 1996, and the related statements of operations, partners' capital and cash flows for the years ended December 31, 1995 and 1996. These financial statements are the responsibility of the Partnership's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audits 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 ANTI-GENE DEVELOPMENT GROUP as of December 31, 1996, and the results of its operations and its cash flows for the years ended December 31, 1995 and 1996 in conformity with generally accepted accounting principles.

ARTHUR ANDERSEN LLP

Portland, Oregon, March 14, 1997

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ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

#### BALANCE SHEET

#### ASSETS

	DEC	EMBER 31, 1996	MZ	ARCH 31, 1997	
			(U)	NAUDITED)	
CURRENT ASSETS: Cash Certificates of deposit Short-term investmentsheld to maturity Total current assets		1,988 108,201 78,595 			
PROPERTY AND EQUIPMENT, at cost: Furniture and fixtures LessAccumulated depreciation		580 (225) 355		580 (281) 299	)
	\$	189,139	\$	190,343	

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PARTNERS' CAPITAL	 	 
PARTNERS' CAPITAL	\$ 189,139	\$ 190,343

See accompanying notes.

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# ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

# STATEMENTS OF OPERATIONS

	YEAR ENDED DECEMBER 31,				ENDED			
		1995	1996		1996			1997
					(UNAUDITED)			⊃)
REVENUES: Interest income	\$	9,593	\$	7,343	\$ 	1,624	\$	2,001
EXPENSES: Insurance. Accounting. Miscellaneous.		1,250 819		845 235		 845 50		700 97
Total expenses		4,104						797
NET INCOME	\$ 	5,489	\$ 	4,228	\$ 	729	\$	1,204
EARNINGS PER UNIT	\$ 	2.96	\$ 	2.28	\$ 	0.39	\$	0.65
WEIGHTED AVERAGE UNITS OUTSTANDING		1,856		1,856		1,856		1,856

See accompanying notes.

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# ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

# STATEMENTS OF PARTNERS' CAPITAL

	UNITS	AMOUNT
BALANCE, December 31, 1994 AddNet income LessPartnership distributions.		
BALANCE, December 31, 1995 AddNet income LessPartnership distributions	1,856  	187,587 4,228
BALANCE, December 31, 1996AddNet income	1,856	\$ 189,139
BALANCE, March 31, 1997 (unaudited)		\$ 190,343

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## ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

#### STATEMENTS OF CASH FLOWS

	YEAR ENDED I	DECEMBER 31,	THREE MONTHS ENDED MARCH 31,			
		1996				
			(UNAUE			
CASH FLOWS FROM OPERATING ACTIVITIES:						
Net income Adjustments to reconcile net income to net cash provided by						
operating activitiesDepreciation and amortization		847		56		
Net cash provided by operating activities	5,489	5,075	729			
CASH FLOWS FROM INVESTING ACTIVITIES: Purchases of property and equipment Proceeds from redemption of certificates of deposit Purchase of certificate of deposit Purchase of tax-exempt bonds	183,875 (185,971)	 185,266 (108,201) (78,595)	(603)	'		
Net cash used by investing activities		(1,530)				
CASH FLOWS FROM FINANCING ACTIVITIES: Partnership distributions						
INCREASE (DECREASE) IN CASH CASH, beginning of period	1,007	869 1,119	1,119	1,988		
CASH, end of period		\$ 1,988				

See accompanying notes.

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## ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

# NOTES TO FINANCIAL STATEMENTS

# 1. ORGANIZATION AND NATURE OF BUSINESS:

ANTI-GENE DEVELOPMENT GROUP (the Partnership), a limited partnership, was founded in 1981 and registered in the State of Oregon. Through 1992, substantially all proceeds from Partnership interest sales and interest income had been paid to ANTIVIRALS INC. (the Company) under terms of research and development contracts entered into by the Partnership and the Company. The mission of the Company at that time, and as expanded today, is to develop and commercialize improved therapeutic products based upon antisense and drug delivery technology.

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 each unit warrant held for 1,100 shares of common stock or warrants to purchase 1,100 shares of common stock or warrants to purchase 325 partnership units for warrants to purchase 357,500 shares of common stock. Total units exchanged in the offer were 1,809.5.

In February 1993, the Company and the Partnership entered into a Technology Transfer Agreement wherein effective May 19, 1993, 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 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.

After the effective date of the Technology Transfer Agreement, the Partnership ceased active sales of partnership units and no longer enters into research and development contracts with the Company. The Partnership currently exists for the purpose of collecting payments from the Company as called for in the Technology Transfer Agreement.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

# USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires 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.

## SHORT-TERM INVESTMENTS--HELD-TO-MATURITY

In January 1994, the Partnership adopted Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities" (SFAS 115). In accordance with SFAS 115, the Partnership has classified its investment securities as held-to-maturity and, accordingly, such investment securities are stated on the balance sheet at their amortized cost. Short-term investments at December 31, 1996 include a certificate of deposit with a value of \$108,201, state and local government obligations with an amortized cost of \$76,911, and a municipal money market fund with a value of \$1,684. Amortization of bond premium was \$706 in 1996 and \$0 in 1995.

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# ANTI-GENE DEVELOPMENT GROUP (AN OREGON LIMITED PARTNERSHIP)

## NOTES TO FINANCIAL STATEMENTS (CONTINUED)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED) INCOME TAXES

All tax effects of the Partnership's operations are passed through to the partners individually. Accordingly, the accompanying financial statements include no income tax expense for the Partnership.

## UNAUDITED INTERIM FINANCIAL INFORMATION

The unaudited financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and note disclosures normally included in annual financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to those rules and regulations, although the Company believes that the disclosures made are adequate to make the information presented not misleading. These unaudited financial statements reflect, in the opinion of management, all adjustments (which include only normal recurring adjustments) necessary to fairly present the results of operations, changes in cash flows and financial position as of and the for periods presented. These unaudited financial statements should be read in conjunction with the audited financial statements and related notes thereto, appearing elsewhere herein. The results of the interim periods presented are not necessarily indicative of results to be expected for a full year.

# 3. SUBSEQUENT EVENTS:

On January 20, 1997, the Partnership and the Company amended the Technology Transfer Agreement to reduce the technology fees arising from the sale of diagnostic products from 4.05 percent to 2 percent and to remove the \$200 million exemption with respect to sales of such diagnostic products. The Partnership also received a royalty-bearing license to make, use and sell certain quantities of product derived from the intellectual property.

In 1997, as a condition to its planned initial public offering, the Company intends to offer 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. If all such offerees elect to rescind their purchases, the Company will be required to pay these shareholders \$3,121,965 and 568.67 units of limited partnership interests in the Partnership, plus statutory interest. To the extent these shareholders accept the rescission offer, the Company will use up to \$1,500,000 of its cash resources to repurchase the shares. If any additional consideration is required to repurchase the shares, the Company will issue unsecured promissory notes to the shareholders on a pro rata basis. Such notes will bear interest at 9% per annum and mature between 18 and 36 months. If additional Partnership units are issued, the fees arising from the sale of therapeutic products will be adjusted on a pro rata basis, such that if all Partnership unit holders accept the rescission offer, the fees for sales of therapeutic products will increase to approximately 5.25%. Fees related to diagnostic products under such a scenario would remain at 2%. The Company believes that its potential exposure to litigation for possible past violations of securities laws will be effectively eliminated by this rescission offer.

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# PART II INFORMATION NOT REQUIRED IN PROSPECTUS

# ITEM 20. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

As an Oregon corporation the Company is subject to the Oregon Business Corporation Act ("OBCA") and the exculpation from liability and indemnification provisions contained therein. Pursuant to Section 60.047(2)(d) of the OBCA, Article VI of the Company's Second Restated Articles of Incorporation (the "Articles") eliminates the liability of the Company's directors to the Company or its stockholders, 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 no 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 indemnify against the reasonable expenses associated with such claims unless the party is adjusted liable to the corporation. Corporations may not indemnify if the party is adjudged liable for receiving improper personal benefit. The OBCA provides for mandatory indemnification of directors against all reasonable expenses incurred in the successful defense of any claim made or threatened whether or not such claim 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 of 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, vote of stockholders or otherwise.

Article VII of the Articles requires the Company to indemnify its directors and officers to the fullest extent not prohibited by law. The Bylaws of the Company also permit the Company to indemnify its directors and officers to the fullest extent permitted by the OBCA.

ITEM 21. EXHIBITS.

(a) Exhibits

NUMBER

DESCRIPTION

\_\_\_\_\_

3.1 Third Restated Articles of Incorporation of AntiVirals Inc.(1)

3.2 Bylaws of AntiVirals Inc.(1)

3.3 Certificate of Limited Partnership of Anti-Gene Development Group(2)

4.1 Registration Rights Agreement between AntiVirals Inc. and Ice Bear, Inc., dated May 20, 1992(1)

4.2 Purchase Warrants between AntiVirals and ORTDF, dated August 4, 1992(1)

5.0 Opinion of Ater Wynne Hewitt Dodson & Skerritt, LLP as to the legality of the securities being registered(2)

10.1 1992 Stock Incentive Plan(1)

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10.2 Employment Agreement with Denis R. Burger, Ph.D. dated November 4, 1996(1)

10.3 Employment Agreement with James Summerton, Ph.D. dated November 4, 1996(1)

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NUMBER	DESCRIPTION
10.4	Employment Agreement with Alan P. Timmins dated November 4, 1996(1)
10.5	Employment Agreement with Dwight Weller, Ph.D. dated November 4, 1996(1)
10.6	Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1992(1)
10.7	Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc. dated January 20, 1997.(1)
10.8	License and Option Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1993.(1)
10.9	Commercial Lease between Research Way Investments, Landlord, and AntiVirals Inc., Tenant, dated June 15, 1992.(1)
10.10	Lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated June 17, 1992.(1)
10.11	First Amendment to lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated July 24, 1995.(1)
10.12	Pledge Agreement, dated , 1997
23.1	Consent of Ater Wynne Hewitt Dodson & Skerritt, LLP (included in legal opinion filed as Exhibit 5.0)(2)
23.2	Consent of Arthur Andersen LLP
23.3	Consent of Dehlinger & Associates
23.4	Consent of Arthur Andersen LLP
25.0	Powers of Attorney (included in signature page in Part II of the Registration Statement)

(1) Filed as an Exhibit to the Company's Registration Statement on Form SB-2

(Commission File No. 333-20513 and filed on January 28, 1996) and incorporated herein by reference.

(2) Previously filed as an Exhibit to this Registration Statement.

(b) Financial Statement Schedules

# ITEM 22. UNDERTAKINGS.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 24, 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 Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification 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.

The undersigned registrant hereby undertakes:

1. To file, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to:

(i) include any prospectus required by section 10(a)(3) of the Securities Act;

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(ii) reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information set forth in the registration statement; and

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

2. That, for determining liability under the Securities Act, it will 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. To file a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

4. That, for determining any liability under the Securities Act, it will 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 Company 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. That, for determining any liability under the Securities Act, it will treat each post-effective amendment that contains a form of prospectus as a new registration statement for the securities offered therein, and the offering of the securities at that time as the initial bona fide offering thereof.

6. The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into the prospectus pursuant to Item 4, 10(b), 11 or 13 of this form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information

contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

7. The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

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#### SIGNATURES

In accordance with the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-4 and authorized this registration statement to be signed on its behalf by the undersigned in the city of Portland, state of Oregon, on May 22, 1997.

## ANTIVIRALS INC.

By: /s/ DENIS R. BURGER Denis R. Burger, CHIEF EXECUTIVE OFFICER

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Denis R. Burger and Alan P. Timmins and each of them singly, as true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities to sign the Registration Statement filed herewith and any or all amendments to said Registration Statement (including post-effective amendments), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents and full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as full to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his substitute, may lawfully do or cause to be done by virtue hereof.

Witness our hands on the date set forth below.

In accordance with the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacity stated on April 21, 1997.

 SIGNATURE
 TITLE

 /s/ DENIS R. BURGER
 Chief Executive Officer

 and Director (Principal

 Denis R. Burger
 Executive Officer)

 /s/ JAMES E. SUMMERTON
 President, Chief

 James E. Summerton
 Director

/s/ ALAN P. TIMMINS

Alan P. Timmins

#### Chief Operating Officer and Chief Financial - -----Officer (Principal Financial and Accounting Officer)

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SIGNATURE TITLE \_\_\_\_\_ /s/ DWIGHT D. WELLER Vice President of Research - ----- and Development and Dwight D. Weller Director /s/ JOHN A. BEAULIEU - ----- Chairman of the Board John A. Beaulieu /s/ NICK BUNICK - ----- Director Nick Bunick /s/ JAMES B. HICKS - ----- Director James B. Hicks /s/ DONALD R. JOHNSON - ----- Director Donald R. Johnson /s/ JAMES E. REINMUTH - ----- Director James E. Reinmuth /s/ JOSEPH RUBINFELD - ----- Director Joseph Rubinfeld

## II-5

#### SIGNATURES

In accordance with the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-4 and authorized this registration statement to be signed on its behalf by the undersigned in the city of Portland, state of Oregon, on May 22, 1997.

> ANTI-GENE DEVELOPMENT GROUP, A LIMITED PARTNERSHIP

/s/ JAMES E. SUMMERTON By: \_\_\_\_\_ James E. Summerton, GENERAL PARTNER

# ANTIVIRALS INC. INDEX TO EXHIBITS

NUMBER	DESCRIPTION	PAGE
3.1	Third Restated Articles of Incorporation of AntiVirals Inc.(1)	
3.2	Bylaws of AntiVirals Inc.(1)	
3.3	Certificate of Limited Partnership of Anti-Gene Development Group(2)	
4.1	Registration Rights Agreement between AntiVirals Inc. and Ice Bear, Inc., dated May 20, 1992(1)	
4.2	Purchase Warrants between AntiVirals Inc and ORTDF, dated August 4, 1992(1)	
5.0	Opinion of Ater Wynne Hewitt Dodson & Skerritt, LLP as to the legality of the securities being registered(2)	
10.1	1992 Stock Incentive Plan(1)	
10.2	Employment Agreement with Denis R. Burger, Ph.D., dated November 4, 1996(1)	
10.3	Employment Agreement with James Summerton, Ph.D., dated November 4, 1996(1)	
10.4	Employment Agreement with Alan P. Timmins, dated November 4, 1996(1)	
10.5	Employment Agreement with Dwight Weller, Ph.D., dated November 4, 1996(1)	
10.6	Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1992(1)	
10.7	Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AntiVirals Inc., dated January 20, 1996(1)	
10.8	License and Option Agreement between Anti-Gene Development Group and AntiVirals Inc., dated February 9, 1993(1)	
10.9	Commercial Lease between Research Way Investments, Landlord, and AntiVirals Inc., Tenant, dated June 15, 1992(1)	
10.10	Lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated June 17, 1992(1)	
10.11	First Amendment to Lease between Benjamin Franklin Plaza, Inc., Landlord, and AntiVirals Inc., Tenant, dated July 24, 1995(1)	
10.12	Pledge Agreement, dated , 1997	
23.1	Consent of Ater Wynne Hewitt Dodson & Skerritt, LLP (included in legal opinion filed as Exhibit 5.0)(2)	
23.2	Consent of Arthur Andersen LLP	
23.3	Consent of Dehlinger & Associates	
23.4	Consent of Arthur Andersen LLP	
25.0	Powers of Attorney (included in signature page in Part II of the Registration Statement)	

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\* To be filed by amendment.

- (1) Filed as an Exhibit to the Company's Registration Statement on Form SB-2 filed on January 28, 1997 (Commission File No. 333-20513) and incorporated herein by reference.
- (2) Previously filed as an Exhibit to this Registration Statement.

#### PLEDGE AGREEMENT

This Pledge Agreement (the "Pledge Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_, 1997, by Cascadia Pacific Management, LLC, an Oregon limited liability company, on behalf of the Oregon Research and Technology Development Fund, James E. Summerton, Ph.D, Dennis R. Burger, Ph.D., Dwight B. Weller, Ph.D., Nick Bunick, Donald R. Johnson, Ph.D., and James E. Reinmuth, Ph.D. (the "Pledgors") to \_\_\_\_\_\_, as collateral agent (the "Collateral Agent"), for the Note Holders identified in Schedule A hereto.

#### Recitals:

A. The Pledgors are holders of record of 3,842,708 shares of the Common Stock of Antivirals, Inc., an Oregon corporation (the "Company"), which shareholdings are more particularly set forth in Schedule B hereto.

B. The Company has filed a registration statement with the Securities and Exchange Commission in connection with the proposed initial public offering of 1,500,000 units, which initial public offering is being underwritten by Paulsen Investment Company, Inc. Under the terms of the proposed underwriting agreement between the Company and Paulson Investment Company, Inc., the obligation of Paulson Investment Company, Inc. to undertake the proposed unit offering is conditioned on the Company's undertaking a rescission offering to certain shareholders of the Company who acquired Common Stock of the Company between October 1990 and March 1994.

C. The Company has filed a registration statement with the Securities and Exchange Commission in connection with a proposed rescission offering to certain shareholders of the Company. It is contemplated that the rescission price will be paid in cash to all eligible offerees; provided, however, that to the extent that securities with an aggregate cash rescission price in excess of \$1,500,000 are tendered to the Company in response to the rescission offering and if the proposed unit offering has not closed, the Company may issue to rescinding security holders in the states of Oregon and Colorado a portion of the rescission price in the form of promissory notes (the "Notes") of the

# 1 - PLEDGE AGREEMENT

Company bearing interest at the rate of 9% per annum and with maturities of 18 months to 36 months.

D. Certain state regulatory authorities have required the Notes to be secured. The Pledgors desire to pledge certain of their shares of Common Stock of the Company to secure the Company's payment of the Notes and to facilitate the undertaking of the rescission offering and the unit offering.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. PLEDGE OF SHARES. The Pledgors grant to the Collateral Agent for the benefit of the Note Holders by pledge a security in and to all right, title and interest of the Pledgors in [insert number of shares which, when divided by the market price of the Company's Common Stock or \$6.00 in the absence of a market quote, equal 120% of the outstanding principal amount of the Notes] shares of the Common Stock of the Company, which shares initially pledged are more particularly identified in Schedule C hereto (the "Pledged Shares"). Contemporaneous with the execution and delivery of this Pledge Agreement, the Pledgors will deliver to the Collateral Agent all stock certificates evidencing the Pledged Shares in their possession, together with stock powers endorsed in blank, to hold subject of the terms of this Pledge Agreement.

2. SECURITY FOR OBLIGATIONS. This Pledge Agreement secures the payment by the Company of all obligations of the Company under the Notes, whether for principal, interest, fees, expenses, or otherwise (all such obligations of the Company being the "Obligations"). Recourse to the Pledgors with respect to the Obligations shall be limited solely to the Pledged Shares.

3. VOTING SHARES; CARE AND CUSTODY OF CERTIFICATES.

a. Provided that no Event of Default, as hereafter defined, has occurred and is continuing and that the Pledged Shares, or any shares which are a part thereof, are not subject to sale in accordance with Section 7 hereof, the Pledgors shall be entitled to vote the Pledged Shares or such shares which are a part thereof which are not subject to sale.

# 2 - PLEDGE AGREEMENT

b. Provided that no Event of Default, as hereafter defined, has occurred and is continuing and that the Pledged Shares, or any shares which are a part thereof, are not subject to sale in accordance with Section 7 hereof, the Pledgors shall be entitled to receive and retain any dividend or other distribution, whether in securities or other property (other than a stock split, split-up or exchange of shares) made in respect of such shares of the Pledged Shares which are not subject to sale. The Collateral Agent shall be entitled to receive and retain and pledge any dividend or other distribution, whether in securities or other property, made in respect of such shares which are subject to sale in accordance with Section 7 hereof. Securities issued in respect of the Pledged Shares, or any shares which are a part thereof, by reason of a stock split, split-up or exchange, shall be subject to the pledge arising under this Pledge Agreement. The Pledgors shall immediately deliver all such securities, in pledge, to the Collateral Agent.

c. The Collateral Agent shall take reasonable care in the preservation of all stock certificates delivered to the Collateral Agent by the Pledgors.

4. ADDITION TO PLEDGED SHARES; RELEASE OF SHARES FROM PLEDGE.

Not more than five (5) business days after the end of each month, the Collateral Agent shall deliver to the Company for distribution to the Pledgors a Coverage Certificate, setting forth the last reported closing price for shares of the Common Stock of the Company on the last business day of the preceeding month, or \$6.00 in the absence of a closing price, and the number of shares of Common Stock of the Company, based on such price, which shall equal 120% of the outstanding principal balance of the Notes when multiplied by such closing price (the "Monthly Pledge Requirement"). If the Monthly Pledge Requirement is greater than the number of shares constituting the Pledged Shares, not more than five (5) business days after delivery of the Coverage Certificate, the Pledgors shall pledge and deliver to the Collateral Agent that number of shares of Common Stock of the Company equal to the difference between the Monthly Pledge Requirement and the Pledged Shares; provided, however, that the number of shares subject to pledge under this Pledge Agreement shall not exceed 3,842,708, subject to adjustment for stock splits, split-ups and exchanges. Not more than two (2) days after the sale of any shares constituting the Pledged Shares in accordance with Section 7 hereof, the Collateral Agent shall deliver to the Company for distribution to the Pledgors a Post-sale Coverage Certificate, setting forth the last reported closing price for shares of Common Stock of the Company on the day of such sale, or the price per share obtained in such sale in the absense of a closing price, and the number of shares of Common Stock of the Company based on such price, which shall equal 120% of the outstanding principal balance of the Notes when multiplied by such closing price (the "Post-Sale Pledge Requirement"). If the Post-Sale Pledge Requirement is greater than the number of shares constituting the Pledged Shares, not more than five (5) business after delivery of the Post-Sale Coverage Certificate, the Pledgors shall pledge and deliver to the Collateral Agent that number of shares of Common Stock of the Company equal to the difference between the Post-Sale

Pledge Requirement and the Pledged Shares. If the Monthly Pledge Requirement is less than the number of shares constituting the Pledged Shares, and no Event of Default, as hereafter defined, has occurred and is continuing, and no shares

3 - PLEDGE AGREEMENT

constituting the Pledged Shares are subject to sale in accordance with Section 6 hereof, the Pledgors may request, in writing, the release from the pledge created by this Pledged Agreement to the Pledgors, such number of the Pledged Shares as shall cause the number of shares subject to such pledge to equal the Monthly Pledge Requirement. The specific shares to be released to the Pledgors shall be identified in such written request which shall be executed by all of the Pledgors, their representatives or successors.

5. EVENTS OF DEFAULT. The occurrence and continuation of any of the following events shall constitute an event of default ("Event of Default") under this Pledge Agreement:

a. the Company shall fail to pay when due any installment of principal of, or interest on, the Notes to any Note Holder, the Collateral Agent shall have received written notice of such failure from such Note Holder, and such failure shall remain unremedied for five (5) business days after written notice thereof shall have been given to the Company by the Collateral Agent; or

b. the Pledgors shall have failed to deliver to the Collateral Agent additional shares of the Common Stock of the Company as required in accordance with Section 4 hereof, and such failure shall have remained unremedied for five (5) business days after written notice thereof shall have been given to the Pledgors by the Collateral Agent.

6. REMEDIES OF COLLATERAL AGENT. Upon the occurrence of any Event of Default, the Collateral Agent may in the Collateral Agent's sole discretion, without further notice to the Pledgors:

a. register in the Company's name any of the Pledged Shares which the Collateral Agent reasonably determines shall be in an amount of such shares necessary to satisfy the then-matured obligations of the Company arising under the Notes; and

b. sell or otherwise dispose of the Pledged Shares which the Collateral Agent reasonably determines shall be in an amount of such shares necessary to satisfy the Company's then-matured obligations arising under the Notes in accordance with Section 7 hereof.

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7. SALE UPON OCCURRENCE OF EVENT OF DEFAULT. Pledgors and the Collateral Agent agree that, although a public market may exist for the Common Stock of the Company, certain or all of the Pledged Shares may be subject to restrictions and accordingly may not be sold in the public market. Accordingly, certain or all of the Pledged Shares may not be subject to sale in a "recognized market" within the contemplation of Or. Rev. Stat. 79.5040. Based on the foregoing, the parties desire to agree to reasonable standards for conducting a commercially reasonable sale of the Pledged Shares upon the Occurrence of Event of Default. Without limiting the rights of the Collateral Agent, if certain or all of the Pledged Shares cannot be sold in the public market for the Company's Common Stock, compliance with the following procedures shall be deemed to satisfy the requirements of a commercially reasonable sale:

a. The sale may be either a public or private sale, in the Collateral Agent's sole discretion, for all or a part of the Pledged Shares;

b. The Collateral Agent shall establish a date for public sale of

the shares, or a date after which a private sale may occur, which date shall be set not less than 30 days after the date notice of such a proposed sale is given to the Pledgors and shall further provide the Pledgors advance written notice specifying the time and place of any public sale;

c. Any public sale shall take place at a site in Oregon selected by the Collateral Agent;

d. At any public or private sale of any of the Pledged Shares, the Collateral Agent may restrict the prospective purchasers or bidders to persons or entities who, in the reasonable opinion of the Collateral Agent, would enjoy the right to purchase the Pledged Shares without the need for further registration under applicable federal or state securities laws.

Notwithstanding the foregoing, the Pledgors shall enjoy the right to purchase at such sale the Pledged Shares subject to such sale at a price equal to highest bona fide offer received by the Collateral Agent.

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8. TERM OF PLEDGE. This Pledge Agreement shall terminate, the Pledged Shares shall be released from the pledge created by this Pledge Agreement, and the Collateral Agent will deliver all certificates representing the Pledged Shares in its possession to the Pledgors upon receiving a certificate from the Chief Financial Officer of the Company confirming to the Collateral Agent that Obligations have been satisfied in full.

## 9. MISCELLANEOUS.

a. CUMULATIVE RIGHTS. The rights, powers, and remedies of the Collateral Agent under this Pledge Agreement shall be in addition to all rights, powers, and remedies given to the Collateral Agent by virtue of any statute or rule of law, or any other agreement, all of which shall be cumulative and may be exercised successively or concurrently without impairing the Note Holder's security interest in the Pledged Shares.

b. WAIVER. Any waiver, forbearance, failure, or delay by the Collateral Agent in exercising, or in the exercise or beginning of exercise by the Collateral Agent of, any right, power, or remedy, simultaneous, or later, shall not preclude the further, simultaneous or later exercise, and every right, power, or remedy of the Collateral Agent shall continue in full force and effect until it is specifically waived in a writing executed by the Collateral Agent.

c. SEVERABILITY. If any provision in this Pledge Agreement is held invalid or unenforceable, this Pledge Agreement and the rights and obligations of the parties shall be construed without reference to such provision and enforced accordingly.

d. BENEFIT AND ASSIGNMENT. This Pledge Agreement shall be binding upon and shall inure to the benefit of the parties and their respective successors and assigns. Pledgors may not voluntarily or involuntarily assign their interests under this Pledge Agreement.

e. ENTIRE AGREEMENT. This Pledge Agreement embodies the entire agreement and understanding of the parties and supersede any and all prior agreements, arrangements, and

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understandings relating to matters provided for in this Pledge Agreement. No amendment or waiver of compliance with any provision or condition of this Pledge Agreement or consent pursuant to this Pledge Agreement will be effective unless evidenced by an instrument signed by the parties. (f) GOVERNING LAW. The construction and performance of this Agreement will be governed by the laws of the state of Oregon.

(g) ATTORNEYS' FEES. If a party is required to bring a legal action to enforce this Agreement, the prevailing party will be entitled to recover their costs and expenses, including reasonable legal fees, incurred in connection with such action.

(h) NOTICES. Any notice or other communication required to be otherwise given under this Agreement shall be in writing and shall be deemed to have been given (i) when delivered personally or (ii) two business days after it has been deposited with the U.S. Postal Service, postage prepaid, and addressed to the notified party as follows:

To the Collateral Agent:

With a copy to:

To the Pledgors:

Cascadia Pacific Management, LLC on behalf of the Oregon Research and Technology Development Fund James E. Summerton, Ph.D Dennis R. Burger, Ph.D. Dwight B. Weller, Ph.D. Nick Bunick, Ph.D.

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Donald R. Johnson, Ph.D. James E. Reinmuth, Ph.D.

With a copy to:

The address to which notice or other communications shall be mailed may be changed from time to time by giving written notice to the other party.

IN WITNESS WHEREOF, the parties have executed this Pledge Agreement as of the date first set forth above.

PLEDGORS:

Cascadia Pacific Management, LLC on behalf of the Oregon Research and Technology Development Fund

Ву \_\_\_\_\_

\_\_\_\_\_\_

James E. Summerton, Ph.D

Dennis R. Burger, Ph.D.

Dwight B. Weller, Ph.D.

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Nick Bunick

Donald R. Johnson, Ph.D.

James E. Reinmuth, Ph.D.

COLLATERAL AGENT:

By \_\_\_\_\_ \_\_\_\_\_ Its \_\_\_\_\_

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# CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the use of our reports dated March 10, 1997, relating to the financial statements of AntiVirals Inc. and to all references to our firm included in Amendment No. 4 to Registration Statement on Form SB-2 on Form S-4 (No. 333-20511) of AntiVirals Inc.

ARTHUR ANDERSEN LLP

Portland, Oregon, May 22, 1997

EXHIBIT 23.3

CONSENT OF PATENT COUNSEL TO ANTIVIRALS, INC.

We hereby consent to the reference to this firm under the caption "Experts" in the prospectus constituting a part of the Registration Statement on Form S-4 (No. 333-20511) of AntiVirals, Inc.

DEHLINGER & ASSOCIATES

May 22, 1997 Palo Alto, California

# CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the use of our reports dated March 14, 1997, relating to the financial statements of Anti-Gene Development Group, and to all references to our firm included in Amendment No. 4 to Registration Statement on Form SB-2 on Form S-4 (No. 333-20511) of AntiVirals Inc.

ARTHUR ANDERSEN LLP

Portland, Oregon, May 22, 1997