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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-KSB

/X/ ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 1997

/ / TRANSITION REPORT PURSUANT TO SECTION 13 OF 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 0-22613

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

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

ONE SW COLUMBIA STREET, SUITE 1105, PORTLAND, OREGON 97258  
(Address of principal executive offices) (Zip Code)

Issuer's telephone number, including area code: 503-227-0554

Securities registered under Section 12(b) of the Exchange Act: NONE  
Securities registered under Section 12(g) of the Exchange Act:  
COMMON STOCK, NO PAR VALUE  
(Title of Class)

Check whether the issuer (1) filed all reports required to be filed by  
Section 13 or 15(d) of the Exchange Act during the past 12 months (or for  
such shorter period that the Registrant was required to file such reports),  
and (2) has been subject to such filing requirements for the past 90 days:  
Yes /X/ No / /

Check if there is no disclosure of delinquent filers in response to Item 405  
of Regulation S-B contained in this form, and no disclosure will be  
contained, to the best of registrant's knowledge, in definitive proxy or  
information statements incorporated by reference in Part III of the Form  
10-KSB or any amendment to this Form 10-KSB. / /

Issuer's revenues for its most recent fiscal year were \$14,345. The  
aggregate market value of voting stock held by non-affiliates of the  
registrant was \$76,020,354 as of March 20, 1998, based upon the last sales  
price as reported on the Nasdaq National Market System.

The number of shares outstanding of the Registrant's Common Stock as of March  
20, 1998 was 11,158,951 shares.

Transitional Small Business Disclosure Format (check one): Yes / / No /X/

DOCUMENTS INCORPORATED BY REFERENCE

The issuer has incorporated into Part III of Form 10-KSB, by reference,  
portions of its Proxy Statement dated March 30, 1998.

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PART I

ITEM 1. DESCRIPTION OF BUSINESS

GENERAL OVERVIEW

ANTIVIRALS INC (the "Company") is a pioneer in the development of two platform technologies, antisense and drug delivery, to treat life-threatening diseases. The Company's innovative drug development program has a primary clinical focus on cancer and cardiovascular disease with two areas of near-term focus:

- NEUGENE antisense compounds for cancer and restenosis, and
- CYTOPORTER drug delivery engines for enhanced delivery of FDA-approved drugs with delivery problems.

The first application of the Company's antisense technology is designed to treat diseases involving cellular proliferation such as cancer, the

cardiovascular disease called restenosis, and other proliferative disorders. The Company is currently in pre-clinical development with this multi-use compound and expects to file an Investigational New Drug Application ("IND") to begin clinical trials in the next year. The Company's first planned drug delivery products combine a novel CYTOPORTER delivery engine with two FDA-approved drugs that have delivery problems. These drugs, paclitaxel (Taxol) and cyclosporin are both off patent 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 paclitaxel and to initiate pre-clinical studies with its enhanced form of cyclosporin in 12-24 months. See "Drug Approval Process and Other Government Regulation."

The Company has signed an agreement to acquire ImmunoTherapy Corporation, a Seattle based biotechnology company with a therapeutic cancer vaccine in Phase II clinical trials for colorectal cancer. This transaction is subject to shareholder approval of each company and is expected to close in mid 1998. This acquisition adds a third platform technology (cancer vaccines) to the Company's portfolio and moves the Company to later stage clinical development with two additional Phase II trials and one Phase III trial expected in 1998. See "Drug Approval Process and Other Government Regulation."

The Company's long-term product development program uses its NEUGENE and CYTOPORTER technologies to develop drugs to treat a broad range of human diseases and combines these technologies to produce combination drugs with additional potential clinical applications. The Company has filed patent applications covering the basic compositions of matter, methods of synthesis and therapeutic uses of NEUGENES 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 compositions of matter, methods of synthesis and medical uses of CYTOPORTER compounds have been filed.

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DRUG DESIGN AND DEVELOPMENT. Most conventional drugs are 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 at clinical 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 such as cancer and cardiovascular diseases have been particularly difficult to develop because these diseases use the patient's own cellular machinery and therefore provide few disease 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 cancer, cardiovascular, and infectious diseases. This new approach uses synthetic compounds, or polymers, designed to block the function of genetic sequences involved in the disease process. Targeting these genetic sequences provides the selectivity that is not available in conventional drug development. The antisense approach inhibits the disease mechanism at the genetic level.

Many drugs must cross tissue and cellular barriers to reach their therapeutic targets inside cells. Drugs of this type must move from the aqueous environment in blood across the lipid cell membrane and into the interior of 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 NEUGENE antisense technology addresses the issue of drug selectivity, and its CYTOPORTER drug delivery technology is designed to address delivery problems with both FDA-approved drugs and with antisense compounds. The characteristics of the patented structure of the Company's NEUGENE compounds distinguish its antisense technology from competing technologies. 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 site of action.

## PRODUCTS

### NEAR-TERM PRODUCT DEVELOPMENT SUMMARY

The first application of the Company's antisense technology is designed to treat proliferation disorders; namely, cancer and 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 NEUGENE	Resten-NG/R	Restenosis	Pre-clinical studies in 1998 and IND filing expected in 1999
AVI-2221 NEUGENE	Resten-NG/C	Cancer	Pre-clinical studies in 1998 and IND filing expected in 1999
AVI-2301 CYTOPORTER	Paclitaxel-CP	Cancer	Pre-clinical studies in 1998 and IND filing expected in 1999
AVI-2401 CYTOPORTER	Cyclosporin-CP	Transplantation	Pre-clinical studies in 1998 and IND filing expected in 1999

## ANTISENSE - NEUGENE TECHNOLOGY

### TECHNICAL OVERVIEW

GENETIC STRUCTURE AND FUNCTION. All life forms contain genetic information in molecules called DNA and RNA, which comprise the operating instructions for life processes. The specific instructions are called genes, which are long chains or strands of duplex DNA composed 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 can pair with T, and C can pair with G. Consequently, each genetic strand has the unique ability to bind specifically to a complementary strand and thereby 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. An antisense compound is a synthetic strand of bases in a sequence 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 decoding of message and resultant protein assembly.

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, an antisense compound can be prepared that is complementary to a target sequence in a pathogen or pathogenic process. When this complementary antisense compound binds tightly to the disease-causing sequence, the synthesis of a selected protein is inhibited, and thus the pathogen or pathogenic process is disabled.

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 in the Company's backbone carry no charge. The Company believes these differences will 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, Inex, Hybridon, and others 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 pharmaceutical 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.

NEUGENE 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 and purified 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 NEUGENE compounds, display advantageous pharmaceutical properties (stability, neutral charge, high binding affinity and specificity). Moreover, they are made from less expensive, more abundant starting materials, and the Company believes that they will cost

significantly less to produce than second-generation compounds.

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The Company and others have shown in cell culture, animal and pre-clinical studies that NEUGENE 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 life-threatening 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 in blood and other tissues
- Efficacy: ability to inhibit expression of the target gene in animal models
- Potency: the dose required to be effective is lower than competing technologies
- Specificity: binding restricted to the selected target, reducing toxicity
- Cost effectiveness: manufacturing efficiency, which allows a broad range of applications
- Delivery/Pharmacokinetics: ability to enter tissues and cells in order to reach disease targets in a clinical setting

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 NEUGENE 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. The Company has conducted studies indicating that NEUGENE agents are stable to a broad range of degradative enzymes and are stable in biological tissues.

EFFICACY, POTENCY, AND SPECIFICITY. These parameters refer to the efficiency with which the antisense compounds block selected protein production. In a direct comparison with second-generation compounds, the Company's NEUGENE compounds exhibited substantially greater efficacy, potency, and specificity in animal and preclinical studies than competing technologies.

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 NEUGENE 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 NEUGENES will be significantly less than that of gene-inactivating compounds prepared from natural or modified subunits by competitors.

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DELIVERY. To reach their targets, antisense compounds must cross tissue and

cellular barriers, including cellular and nuclear membranes. Preliminary research in animal and preclinical studies indicates that the Company's antisense compounds are effective in reaching and inhibiting their targets inside of cells. The Company also believes that improved cellular delivery may be required for broad utilization of antisense technology and accordingly, has devoted a substantial research effort to develop technology for improving delivery of antisense compounds. See "Drug Delivery - CYTOPORTER."

#### NEAR-TERM ANTISENSE PRODUCT DEVELOPMENT -- CANCER AND RESTENOSIS

The first application of the Company's antisense technology is designed to treat proliferation disorders including cancer and restenosis, a cardiovascular disease. The Company's NEUGENE target for proliferative diseases is a transcription factor, the oncogene named c-myc. The Company believes that this target is applicable to a range of proliferative diseases including many types of cancer, certain cardiovascular and inflammatory diseases, and some non-malignant proliferative disorders such as psoriasis.

The first cancer indication to be treated is expected to be osteogenic sarcoma, a form of bone cancer. Cancer is the second leading cause of death in the United States with an incidence of 1,500 deaths a day. There are approximately 8.5 million Americans living with a history of cancer and 500,000 new cases diagnosed annually. Cancer is a variety of different diseases with lung, prostate, breast and colorectal cancer the four most common types which account for over 50% of all newly diagnosed cancers. The market for drugs to treat each of these cancer types is estimated to be in excess of \$1 billion annually. Osteogenic sarcoma has been selected for the Company's initial clinical trial because it provides an ideal study setting to determine clinical efficacy and because the Company believes that clinical results in that setting would be applicable to the four major cancer types.

The Company has selected restenosis as its first cardiovascular antisense opportunity. 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 expand the artery channel. 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 closure of the artery a second time. Restenosis occurs in approximately 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 period of time 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 are approximately 500,000 balloon angioplasties done in the U.S. each year with a market estimated at more than \$1 billion annually.

The Company has selected target genetic sequences, has produced drug candidates, and has demonstrated that its NEUGENE compounds inhibit cell division in laboratory models for both cancer and cardiovascular disease. Compound AVI-2221, Resten-NG, is now in pre-clinical development for restenosis and osteosarcoma, and the Company expects to file an IND to begin clinical trials in one of these applications in 1998. See "Drug Approval Process and Other Government Regulations." The Company intends to co-develop its NEUGENE compound with a pharmaceutical partner. There can be no assurance, however, that the

## DRUG DELIVERY - CYTOPORTER

Many FDA-approved drugs and drugs in development including large molecules such as peptides and antisense compounds, do not readily make their way into cells. The Company has been developing a delivery mechanism that would allow drugs with delivery problems as well as NEUGENES, to be transported directly into the interior of cells. 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 gradient across the endosomal membrane.

### 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 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.

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 in a water-soluble form with its acidic groups exposed and hydrated. On acidification in the endosome, CYTOPORTER undergoes



a transition to a lipid-soluble 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.

CYTOPORTER DRUG TRANSPORT MECHANISM. In preparation for enhanced drug delivery, the selected drug is chemically linked to the CYTOPORTER engine. This process is 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 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 cells neutral 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 polymers such as peptides and 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 NEUGENES.
- Improved transport of small, polar nucleic acid analogs.
- 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 and intradermal 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 paclitaxel (Taxol) and cyclosporin 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.

PACLITAXEL-CP. Taxol is a Bristol-Myers Squibb drug whose patent life expired in 1997. It is the largest selling cancer therapeutic worldwide, with sales of \$820 million in 1996. 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 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 and expects to file an IND to begin clinical trials with this agent in 12 to 24 months. There can be no assurance that the Company will be able to file or obtain approval for an IND in that time frame or at all.

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 1998 and expects to file an IND to begin clinical trials with this agent in 12 to 24 months. There can be no assurance that the Company will be able to file or obtain approval for an IND in that time frame or at all.

## LONG-TERM PRODUCT DEVELOPMENT

The following table summarizes the Company's broader drug development program. These programs utilize the Company's NEUGENE antisense technology and CYTOPORTER drug delivery technology. In addition, the Company anticipates combining its NEUGENE antisense technology with its CYTOPORTER drug delivery technology to produce combination drugs. For each indication, NEUGENES have been designed to target the disease process at the genetic level. The Company has designed CYTOPORTER to deliver drugs to their intracellular site of action. Although NEUGENES may display clinical efficacy on their own, the Company believes that broad use of NEUGENES and other antisense compounds may require a drug delivery strategy.

All of the development programs listed below are in the research or lead compound stage. Disease targets have been identified and NEUGENE 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.

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### NEUGENE Antisense Development Program

ANTISENSE TARGET -----	CLINICAL INDICATION -----
C-myc	cancer cardiovascular restenosis psoriasis chronic graft rejection
Telomerase	cancer
BCL2	cancer
Bcr/abl	leukemia
NOS	cancer psoriasis chronic graft rejection
TNF alpha	rheumatoid arthritis septic shock asthma psoriasis
NF kappa B	Crohn's Disease colitis chronic inflammation
ICAM-1	arthritis psoriasis chronic graft rejection inflammatory bowel disease
Hepatitis C virus	hepatitis liver cancer
Cytomegalovirus	retinitis restenosis

C-MYC. C-myc is an oncogene that is involved in the initiation of cell division at the genetic level and is therefore referred to as a transcription factor. Inhibition of this factor blocks transcription and prevents or retards cell division. NEUGENE antisense compounds directed against c-myc

have been shown to block cell division in model systems and preclinical trials for cardiovascular restenosis and cancer. NEUGENE compounds against c-myc are potentially applicable for the treatment of other proliferation disorders such as psoriasis and chronic graft rejection.

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 NEUGENE compounds that block telomerase activity in model systems in the laboratory.

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BCL2. BCL2 is a proto-oncogene that acts as a major inhibitor of senescence of cancer cells. The protein produced by this gene contributes to the progression of cancer by conveying both a survival advantage to the malignant cells over normal cells and a resistance to radiation and chemotherapy. NEUGENE the BCL-2 gene are designed to block production of this protein in prostate, breast and a broad range of other cancers.

BCR/ABL. Certain types of leukemia (CML) are characterized by a genetic abnormality in which two genes referred to as BCR and ABL become linked to form a hybrid BCR/ABL gene. This gene is only found in certain cancer cells and is involved in the malignant process. NEUGENE therapy directed at the BCR/ABL hybrid gene has the potential to provide a unique treatment for this type of leukemia.

NITRIC OXIDE SYNTHETASE (NOS). The NOS enzymes are involved in the transmission of signals across cellular membranes that results in cellular proliferation. Initial studies with NEUGENES designed to block the NOS signaling pathway indicate this strategy may be useful in the prevention of cellular proliferation in a wide variety of proliferative diseases.

TNF ALPHA. TNF alpha has been implicated as a significant factor in psoriasis, arthritis, asthma, 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 NEUGENE compounds are effective in inhibiting TNF alpha in laboratory and animal models of inflammation.

NUCLEAR FACTOR KAPPA B (NFkB). NFkB is a protein complex involved in the regulation of certain extracellular proteins at the genetic level. These matrix proteins are an essential component in the cellular adhesion process of cells that mediate immune and inflammatory responses. NEUGENE inhibition of NFkB is potentially useful in the management of certain inflammatory diseases such as Crohn's disease, colitis, and chronic 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 NEUGENES against the adhesion molecule ICAM-1 and is testing these compounds in models of inflammation.

HEPATITIS C VIRUS ("HCV"). The Company has initiated a program to produce and evaluate NEUGENE 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 transmission in many cases is obscure. There are no FDA-approved vaccines or therapeutic drugs for the treatment of HCV.

CYTOMEGALOVIRUS ("CMV"). The Company is developing NEUGENE 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.

#### 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 NEUGENES. Because the Company's NEUGENE compounds are based upon a malleable backbone chemistry, the Company believes that NEUGENE 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. The Company contracted with a Good Manufacturing Practices ("GMP") facility 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 IND application and the Company's marketing strategy therefore may not be implemented for several years. See "Drug Approval Process and Other Governmental Regulation."

#### 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 U.S. 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 NEUGENES 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.

#### 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 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 compounds 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 and Paclitaxel-CP will enter this phase 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.

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 1999.

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 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 Sciences, Hybridon, Inex, and ISIS Pharmaceuticals. 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 NEUGENE 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 most 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. The Company believes that the combination of pharmaceutical properties of its NEUGENE compounds for cancer and 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 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.

#### RESEARCH AND DEVELOPMENT

The Company expensed \$2,737,172 and \$1,729,554 on research and development activities during the years ended December 31, 1997 and 1996.

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#### EMPLOYEES

As of December 31, 1997, the Company had 48 employees, 18 of whom hold advanced degrees. Forty-two employees are engaged directly in research and development activities, and six 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.

#### ITEM 2. DESCRIPTION OF PROPERTY

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. The Company believes that its facilities are suitable and adequate for its present operational requirements and that it is not dependent upon any individually leased premises.

#### ITEM 3. LEGAL PROCEEDINGS

As of March 20, 1998, there were no material, pending legal proceedings to

which the Company or its subsidiaries are a party. From time to time, the Company becomes involved in ordinary, routine or regulatory legal proceedings incidental to the business of the Company.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of the Company's shareholders during the quarter ended December 31, 1997.

### PART II

#### ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

The Company's Common Stock is quoted on the Nasdaq National Market System ("Nasdaq NMS") under the symbol "AVII." The following table sets forth the high and low sales prices as reported by Nasdaq NMS from the time of the Company's initial public offering, June 3, 1997.

Year Ended December 31, 1997  
-----

Quarter 2 (from June 3, 1997)	\$ 7.25	\$ 5.75
Quarter 3	7.50	6.44
Quarter 4	9.50	6.69

The number of shareholders of record and approximate number of beneficial holders on March 20, 1998 was 1,001 and 2,500, respectively. There were no cash dividends declared or paid in fiscal years 1997 or 1996. The Company does not anticipate declaring such dividends in the foreseeable future.

There were no sales of unregistered securities by the Company during the period from June 3, 1997, the date of its initial public offering, through December 31, 1997.

#### ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATIONS

##### FORWARD-LOOKING INFORMATION

The statements which are not historical facts contained in this discussion are forward looking statements that involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the results of pre-clinical and clinical testing, the effect of regulation by FDA and other agencies, the impact of competitive products, product development, commercialization and technological difficulties, and other risks detailed in the Company's Securities and Exchange Commission filings.

##### OVERVIEW

From its inception in 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 December 31, 1997, the Company's accumulated deficit was \$16,041,473.

##### RESULTS OF OPERATIONS

YEAR ENDED DECEMBER 31, 1996 COMPARED WITH YEAR ENDED DECEMBER 31, 1997. Operating expenses increased from \$2,343,365 in 1996 to \$4,019,386 in 1997 due to increases in research and development staffing and increased expenses associated with outside collaborations and pre-clinical testing of the Company's technologies. Additionally, increased general and administrative costs were incurred to support the research expansion, and to broaden the Company's investor and public relations efforts due to its change in status to a public company in mid-1997. Interest income increased from \$132,026 in 1996 to \$389,051 in 1997 due to earnings on increased cash balances, which consisted of proceeds from the initial public offerings. The 1997 interest income is net of interest expense of \$119,624 from payments on the Company's rescission offering.

#### LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through equity sales totaling \$34,648,030 and grants and contract research funding of \$703,842 from various sources. The Company's cash and cash equivalents were \$17,638,936 at December 31, 1997, compared with \$3,041,229 at December 31, 1996. The increase of \$14,597,707 was due to net proceeds from the sale of the Company's Common Stock and Warrants of approximately \$18,017,630 offset by the use of approximately \$3,819,858 for operating, financing, and investing activities in 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 pre-clinical and clinical trials, the time and costs involved in obtaining regulatory approvals, the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights, competing technological and market developments, the ability of the Company to establish collaborative arrangements and the terms of any such arrangements, and the costs associated with commercialization of 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

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assurance, however, that the Company will ever be able to generate product revenues or achieve or sustain profitability.

The Company expects that its cash requirements over the next twelve months will be satisfied by existing cash resources.

#### NEW ACCOUNTING PRONOUNCEMENTS

In June 1997, the FASB issued Statement of Financial Accounting Standard No. 130, "Reporting Comprehensive Income" ("SFAS 130"). This statement establishes standards for reporting and displaying comprehensive income and its components in a full set of general purpose financial statements. The objective of SFAS 130 is to report a measure of all changes in equity of an enterprise that result from transactions and other economic events of the period other than transactions with owners. The Company expects to adopt SFAS 130 in the first quarter of 1998 and does not expect comprehensive income to be materially different from currently reported net income.

In June 1997, the FASB issued Statement of Financial Accounting Standard No. 131, "Disclosures about Segments of an Enterprise and Related Information" ("SFAS 131"). This statement establishes standards for the way that public business enterprises report information about operating segments in interim and annual financial statements. It also establishes standards for related disclosures about products and services, geographic areas and major customers. The Company expects to adopt SFAS 131 for its fiscal year beginning January 1, 1998.

#### ITEM 7. FINANCIAL STATEMENTS

The information required by this item begins on page F-1 of this report.

ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

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PART III

ITEM 9. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information regarding directors and executive officers of the registrant required by this item is included in the Company's definitive proxy statement for its 1998 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report and is incorporated herein by reference.

ITEM 10. EXECUTIVE COMPENSATION

The information required by this item is included in the Company's definitive proxy statement for its 1998 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report and is incorporated herein by reference.

ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this item is included in the Company's definitive proxy statement for its 1998 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report and is incorporated herein by reference.

ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this item is included in the Company's definitive proxy statement for its 1998 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report and is incorporated herein by reference.

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ITEM 13. EXHIBITS AND REPORTS ON FORM 8-K

EXHIBITS

The following exhibits are filed herewith and this list is intended to constitute the exhibit index:

Exhibit No.	Description
-----	-----
3.1	Third Restated Articles of Incorporation of AntiVirals Inc. (1)
3.2	Bylaws of AntiVirals Inc. (1)
4.1	Form of Specimen Certificate for Common Stock. (1)
4.2	Form of Warrant for Purchase of Common Stock. (1)
4.3	Form of Warrant Agreement. (1)
4.4	Form of Representative's Warrant. (1)
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 Employment Agreement with Patrick L. Iverson, Ph.D. dated July 14, 1997.  
23.0 Consent of Arthur Andersen LLP  
27.0 Financial Data Schedule

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

#### REPORTS ON FORM 8-K

On November 6, 1997, the Company filed the following current report on Form 8-K under Item 5. Other Events:

Date of Report -----	Topic -----
November 6, 1997	Signing of a letter of intent to acquire ImmunoTherapy Corporation

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#### SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 30, 1998

ANTIVIRALS INC.

By: /s/ Denis R. Burger, Ph.D.

-----  
Denis R. Burger, Ph.D.  
President, Chief Executive Officer  
and Director

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in their capacities indicated on March 30, 1998:

Signature -----	Title -----
/s/ JOHN A. BEAULIEU, PH.D. ----- John A. Beaulieu, Ph.D.	Chairman of the Board
/s/ DENIS R. BURGER, PH.D. ----- Denis R. Burger, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ ALAN P. TIMMINS ----- Alan P. Timmins	Chief Operating Officer, Chief Financial Officer and Director (Principal Financial and Accounting Officer)

/s/ PATRICK L. IVERSON, PH.D. Vice President of Research and Development

-----  
Patrick L. Iverson, Ph.D.

/s/ DWIGHT D. WELLER, PH.D. Senior Vice President of Chemistry and  
----- Manufacturing and Director

Dwight D. Weller, Ph.D.

/s/ NICK BUINCK Director

-----  
Nick Bunick

/s/ JAMES B. HICKS, PH.D. Director

-----  
James B. Hicks, Ph.D.

/s/ JOSEPH RUBINFELD, PH.D. Director

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Joesph Rubinfeld, Ph.D.

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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, 1997 and 1996, and the related statements of operations, shareholders' equity and cash flows for the years ended December 31, 1997 and 1996 and for the period from inception (July 22, 1980) to December 31, 1997. 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, 1997 and 1996, and the results of its operations and its cash flows for the years ended December 31, 1997 and 1996 and for the period from inception (July 22, 1980) to December 31, 1997, in conformity with generally accepted accounting principles.

ARTHUR ANDERSEN LLP

Portland, Oregon  
February 17, 1998

ANTIVIRALS INC.  
(A Development Stage Company)  
BALANCE SHEETS

	December 31,	
	1997	1996
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents	\$ 17,638,936	\$ 3,011,229
Short-term investments - available for sale	-	30,000
Other current assets	19,042	28,255
Total Current Assets	17,657,978	3,069,484
Property and Equipment, net of accumulated depreciation and amortization of \$2,262,755 and \$1,858,359	438,820	531,652
Patent Costs, net of accumulated amortization of \$218,773 and \$168,153	553,063	474,806
Deferred Offering Costs	-	143,110
Deferred Acquisition Costs	102,506	-
Other Assets	29,847	29,847
Total Assets	\$ 18,782,214	\$ 4,248,899
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current Liabilities:		
Accounts payable	\$ 219,083	\$ 153,202
Accrued liabilities	245,369	177,605
Total Current Liabilities	464,452	330,807
Common Stock Subject to Rescission, \$.0001 par value, zero and 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; 11,125,617 and 7,486,790 issued and outstanding	1,113	749
Additional paid-in capital	34,358,122	13,220,861
Deficit accumulated during the development stage	(16,041,473)	(12,425,483)
Total Shareholders' Equity	18,317,762	796,127
Total Liabilities and Shareholders' Equity	\$ 18,782,214	\$ 4,248,899

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

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ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF OPERATIONS

	Year ended December 31,		July 22, 1980 (Inception) to December 31, 1997
	1997	1996	
Revenues, from grants and research contracts	\$ 14,345	\$ 27,227	\$ 703,842
Operating expenses:			

Research and development	2,737,172	1,729,554	11,748,746
General and administrative	1,282,214	613,811	5,831,796
	-----	-----	-----
	4,019,386	2,343,365	17,580,542
Other Income:			
Interest income, net	389,051	132,026	738,477
Realized gain on sale of short-term investments	-	96,750	96,750
	-----	-----	-----
	389,051	228,776	835,227
Net loss	-----	-----	-----
	\$ (3,615,990)	\$ (2,087,362)	\$ (16,041,473)
	-----	-----	-----
Net loss per share - basic and diluted	-----	-----	-----
	\$ (0.36)	\$ (0.25)	
	-----	-----	
Weighted average number of common shares outstanding for computing basic and diluted earnings per share	10,078,962	8,233,548	
	-----	-----	
	-----	-----	

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

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ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF SHAREHOLDERS' EQUITY

	Partnership Units	Common Stock ----- Shares      Amount	Additional Paid-In Capital	Unrealized Gain on Available- For-Sale Securities	Deficit Accumulated During the Development Stage	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 supplies valued at \$3,500 and technology	1,000	1,666,667	167	3,333	-	3,500
Issuance of partnership units and common stock for cash, \$500 per unit	150	250,000	25	75,055	-	75,080
Issuance of partnership units for consulting services, \$500 per unit	10	-	-	5,000	-	5,000
Issuance of common stock in connection with financing agreement	-	33,333	3	7	-	10
Net loss	-	-	-	-	(9,224)	(9,224)
BALANCE AT OCTOBER 31, 1981	1,160	1,950,000	195	83,395	-	74,366
Issuance of common stock for consulting services	-	54,600	5	11	-	16
Net loss	-	-	-	-	(57,962)	(57,962)
BALANCE AT OCTOBER 31, 1982	1,160	2,004,600	200	83,406	-	16,420
Issuance of partnership units and common stock for cash, \$550 per unit	60	100,000	10	33,020	-	33,030
Issuance of common stock for consulting services	-	21,733	2	5	-	7
Net loss	-	-	-	-	(27,475)	(27,475)
BALANCE AT OCTOBER 31, 1983	1,220	2,126,333	212	116,431	-	21,982
Issuance of partnership units and common stock for cash, \$600 per unit	10	16,667	2	6,003	-	6,005
Issuance of partnership units and common stock for consulting services and \$1,000 cash, \$550 to \$600 per unit	20	16,667	2	11,503	-	11,505
Issuance of common stock for consulting services	-	2,533	-	1	-	1
Issuance of common stock for donation to charitable organizations	-	100,000	10	20	-	30
Net loss	-	-	-	-	(21,463)	(21,463)
BALANCE AT OCTOBER 31, 1984	1,250	2,262,200	226	133,958	-	18,060
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	-	23,523
Issuance of partnership units for cash, \$50 to \$550 per unit	140	-	-	17,000	-	17,000
Issuance of common stock for						



consulting services	-	6,733	1	1	-	-	2
Net loss	-	-	-	-	-	(8,469)	(8,469)
BALANCE AT OCTOBER 31, 1985	2,850	2,513,933	251	174,458	-	(124,593)	50,116
Issuance of partnership units and common stock for cash, \$50 to \$500 per unit	90	105,000	11	31,521	-	-	31,532
Issuance of common stock for consulting services	-	8,500	1	1	-	-	2
Net loss	-	-	-	-	-	(32,353)	(32,353)
BALANCE AT OCTOBER 31, 1986	2,940	2,627,433	263	205,980	-	(156,946)	49,297

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

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ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF SHAREHOLDERS' EQUITY

	Partnership Units	Common Stock Shares	Amount	Additional Paid-In Capital	Unrealized Gain on Available- For-Sale Securities	Deficit Accumulated During the Development Stage	Total Shareholders' Equity
BALANCE AT OCTOBER 31, 1986	2,940	2,627,433	\$263	\$205,980	\$ -	\$(156,946)	\$ 49,297
Issuance of partnership units and common stock for cash, \$500 per unit	20	33,333	3	10,007	-	-	10,010
Issuance of partnership units and warrants to purchase 400,000 shares of common stock for cash, \$500 to \$2,500 per unit	80	-	-	100,000	-	-	100,000
Issuance of common stock for consulting services	-	28,533	3	6	-	-	9
Net loss	-	-	-	-	-	(71,616)	(71,616)
BALANCE AT OCTOBER 31, 1987	3,040	2,689,299	269	315,993	-	(228,562)	87,700
Issuance of partnership units and common stock for cash, \$500 per unit	100	166,667	17	50,033	-	-	50,050
Issuance of partnership units and common stock for cash, \$1,250 per unit	20	33,333	3	25,007	-	-	25,010
Issuance of partnership units for cash, \$50 per unit	20	-	-	1,000	-	-	1,000
Issuance of partnership units and warrants to purchase 400,000 shares of common stock for cash, \$1,250 per unit	80	-	-	100,000	-	-	100,000
Compensation expense related to issuance of warrants for partnership units	-	-	-	10,000	-	-	10,000
Issuance of common stock for consulting services and employee compensation	-	47,014	5	9	-	-	14
Net loss	-	-	-	-	-	(266,194)	(266,194)
BALANCE AT OCTOBER 31, 1988	3,260	2,936,313	294	502,042	-	(494,756)	7,580
Exercise of warrants for common stock	-	141,667	14	28	-	-	42
Issuance of partnership units and common stock for cash, \$1,250 per unit	10	16,667	1	12,504	-	-	12,505
Issuance of partnership units and warrants to purchase 800,000 shares of common stock for cash, \$1,250 per unit	160	-	-	200,000	-	-	200,000
Issuance of common stock for consulting services and employee compensation	-	17,733	2	4	-	-	6
Compensation expense related to issuance of warrants for partnership units	-	-	-	2,500	-	-	2,500
Net loss	-	-	-	-	-	(243,926)	(243,926)
BALANCE AT OCTOBER 31, 1989	3,430	3,112,380	311	717,078	-	(738,682)	(21,293)
Exercise of warrants for common stock	-	33,333	3	7	-	-	10
Issuance of partnership units and common stock for cash, \$1,250 per unit	74	123,334	12	92,525	-	-	92,537
Issuance of partnership unit for cash, \$5,000 per unit	1	-	-	5,000	-	-	5,000
Issuance of common stock for cash, \$4.56 per share	-	1,100	-	5,000	-	-	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	-	-	50,000
Issuance of common stock for consulting services and employee compensation	-	11,400	2	51,678	-	-	51,680
Compensation expense related to issuance of warrants for partnership units	-	-	-	40,000	-	-	40,000
Exercise of warrant for partnership units	10	-	-	12,500	-	-	12,500

Net loss	-	-	-	-	-	(351,772)	(351,772)
BALANCE AT OCTOBER 31, 1990	3,555	3,281,547	328	973,788	-	(1,090,454)	(116,338)

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

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ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF SHAREHOLDERS' EQUITY

	Partnership Units	Common Stock Shares	Amount	Additional Paid-In Capital	Unrealized Gain on Available- For-Sale Securities	Deficit Accumulated During the Development Stage	Total Shareholders' Equity
BALANCE AT OCTOBER 31, 1990	3,555	3,281,547	\$328	\$973,788	\$ -	\$(1,090,454)	\$(116,338)
Issuance of partnership units for cash, \$5,000 per unit	23.5	-	-	117,500	-	-	117,500
Exercise of warrants for partnership units and common stock	1	1,100	-	1,250	-	-	1,250
Issuance of common stock for cash, \$4.56 per share	-	24,750	3	112,505	-	-	112,508
Compensation expense related to issuance of warrants for common stock	-	-	-	1,520	-	-	1,520
Issuance of common stock for consulting services, \$4.56 per share	-	1,657	-	7,547	-	-	7,547
Common stock subject to rescission	-	(7,127)	(1)	(32,499)	-	-	(32,500)
Net loss	-	-	-	-	-	(274,844)	(274,844)
BALANCE AT OCTOBER 31, 1991	3,579.5	3,301,927	330	1,181,611	-	(1,365,298)	(183,357)
Issuance of partnership units for cash, \$5,000 per unit	15.5	-	-	77,500	-	-	77,500
Issuance of common stock for cash, \$4.56 per share	-	17,050	2	77,498	-	-	77,500
Compensation expense related to issuance of warrants for common stock	-	-	-	7,500	-	-	7,500
Common stock subject to rescission	-	(32,486)	(3)	(148,135)	-	-	(148,138)
Net loss	-	-	-	-	-	(91,588)	(91,588)
BALANCE AT DECEMBER 31, 1991	3,595	3,286,491	329	1,195,974	-	(1,456,886)	(260,583)
Issuance of partnership units for cash, \$5,000 per unit	30.5	-	-	152,500	-	-	152,500
Exercise of warrants for partnership units and common stock	22	2,200	-	28,750	-	-	28,750
Conversion of debt into common stock and partnership units	9	9,634	1	87,859	-	-	87,860
Issuance of common stock for cash, \$4.56 per share	-	868,906	87	3,954,625	-	-	3,954,712
Issuance of common stock for consulting services, \$4.56 per share	-	22,872	2	104,167	-	-	104,169
Compensation expense related to issuance of warrants for common stock and partnership units	-	-	-	262,833	-	-	262,833
Common stock subject to rescission	-	(410,099)	(41)	(1,870,008)	-	-	(1,870,049)
Net loss	-	-	-	-	-	(1,731,138)	(1,731,138)
BALANCE AT DECEMBER 31, 1992	3,656.5	3,780,004	378	3,916,700	-	(3,188,024)	729,054
Exercise of warrants for partnership units	9	-	-	4,500	-	-	4,500
Issuance of common stock in exchange for partnership units	(1,809.5)	1,632,950	163	(163)	-	-	-
Withdrawal of partnership net assets upon conveyance of technology	(1,856)	-	-	(176,642)	-	-	(176,642)
Issuance of common stock for cash and short-term investments, \$4.95 per share	-	507,084	50	2,510,014	-	-	2,510,064
Exercise of warrants for common stock	-	3,844	1	9,999	-	-	10,000
Common stock subject to rescission	-	(808,902)	(81)	(901,119)	-	-	(901,200)
Net loss	-	-	-	-	-	(2,346,939)	(2,346,939)
BALANCE AT DECEMBER 31, 1993	-	5,114,980	511	5,363,289	-	(5,534,963)	(171,163)
Issuance of common stock for cash, \$4.95 per share	-	565,216	57	2,797,761	-	-	2,797,818
Exercise of warrants for common stock	-	24,667	2	122,098	-	-	122,100
Issuance of common stock for consulting services, \$4.95 per share	-	151	-	749	-	-	749
Unrealized gain on available-for-sale securities	-	-	-	-	61,000	-	61,000
Common stock subject to rescission	-	(34,359)	(3)	(170,075)	-	-	(170,078)
Net loss	-	-	-	-	-	(2,246,272)	(2,246,272)
BALANCE AT DECEMBER 31, 1994	-	5,670,655	567	8,113,822	61,000	(7,781,235)	394,154

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

ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF SHAREHOLDERS' EQUITY

	Partnership Units	Common Stock Shares	Amount	Additional Paid-In Capital	Unrealized Gain on Available- For-Sale Securities	Deficit Accumulated During the Development Stage	Total Shareholders' Equity
BALANCE AT DECEMBER 31, 1994	-	5,670,655	\$ 567	\$ 8,113,822	\$ 61,000	\$ (7,781,235)	\$ 394,154
Issuance of common stock for cash, \$6.00 per share	-	146,183	15	862,674	-	-	862,689
Compensation expense related to issuance of warrants for common stock	-	-	-	213,000	-	-	213,000
Unrealized gain on available-for-sale securities	-	-	-	-	35,750	-	35,750
Net loss	-	-	-	-	-	(2,556,886)	(2,556,886)
BALANCE AT DECEMBER 31, 1995	-	5,816,838	582	9,189,496	96,750	(10,338,121)	(1,051,293)
Exercise of warrants for common stock	-	957,452	96	(96)	-	-	-
Issuance of common stock for cash, \$6.00 per share	-	712,500	71	4,031,461	-	-	4,031,532
Liquidation of available-for-sale securities	-	-	-	-	(96,750)	-	(96,750)
Net loss	-	-	-	-	-	(2,087,362)	(2,087,362)
BALANCE AT DECEMBER 31, 1996	-	7,486,790	749	13,220,861	-	(12,425,483)	796,127
Exercise of warrants for common stock	-	50,000	5	5,010	-	-	5,015
Exercise of options for common stock	-	59,903	6	281,804	-	-	281,810
Issuance of common stock and warrants for cash, \$9.00 per unit, net of offering costs	-	2,300,000	230	18,017,400	-	-	18,017,630
Reclassified upon completion of rescission offering	-	1,228,924	123	2,833,047	-	-	2,833,170
Net loss	-	-	-	-	-	(3,615,990)	(3,615,990)
BALANCE AT DECEMBER 31, 1997	-	11,125,617	\$1,113	\$ 34,358,122	\$ -	\$ (16,041,473)	\$18,317,762

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

ANTIVIRALS INC.  
(A Development Stage Company)  
STATEMENTS OF CASH FLOWS

	Year ended December 31,		For the Period July 22, 1980 (Inception) to December 31, 1997
	1997	1996	
Cash flows from operating activities:			
Net loss	\$ (3,615,990)	\$ (2,087,362)	\$ (16,041,473)
Adjustments to reconcile net loss to net cash flows used in operating activities:			
Depreciation and amortization	467,250	520,300	2,517,107
Realized gain on sale of short-term investments - available for sale	-	(96,750)	(96,750)
Compensation expense on issuance of common stock and partnership units	-	-	182,392
Compensation expense on issuance of options and warrants to purchase common stock or partnership units	-	-	562,353
Conversion of interest accrued to common stock	-	-	7,860
(Increase) decrease in:			
Other current assets	9,213	(21,019)	(19,042)
Other assets	-	-	(29,847)
Net increase in accounts payable and accrued liabilities	133,645	76,743	464,452
Net cash used in operating activities	(3,005,882)	(1,608,088)	(12,452,948)
Cash flows from investing activities:			
Proceeds from sale or redemption of short-term investments	30,000	182,750	247,750
Purchase of property and equipment	(323,798)	(65,877)	(2,737,154)
Patent costs	(128,877)	(66,870)	(771,836)
Deferred acquisition costs	(102,506)	-	(102,506)
Net cash provided by (used in) investing activities	(525,181)	50,003	(3,363,746)

Cash flows from financing activities:			
Proceeds from sale of common stock, warrants, and partnership units, net of offering costs, and exercise of options	18,447,565	3,888,422	33,841,067
Buyback of common stock pursuant to rescission offering	(288,795)	-	(288,795)
Withdrawal of partnership net assets	-	-	(176,642)
Issuance of convertible debt	-	-	80,000
	-----	-----	-----
Net cash provided by financing activities	18,158,770	3,888,422	33,455,630
Increase in cash and cash equivalents	14,627,707	2,330,337	17,638,936
Cash and cash equivalents:			
Beginning of period	3,011,229	680,892	-
	-----	-----	-----
End of period	\$17,638,936	\$ 3,011,229	\$17,638,936
	-----	-----	-----

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

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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 of the Company, respectively. One partner exchanged 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 2 percent of gross revenues from sales of products, which would, in the absence of the Technology Transfer Agreement, infringe a valid claim under any patent transferred to the Company. The Company also granted to the Partnership a royalty-bearing license to make, use and sell small quantities of product derived from the Intellectual Property for research purposes only.

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.

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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.

The Company is in the development stage. Since its inception in 1980 through December 31, 1997, the Company has incurred losses of approximately \$16 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

The Company accounts for its securities under Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities" (SFAS 115). In accordance with 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. These short-term securities included state government obligations with a cost, which approximated fair market value, of \$30,000 at December 31, 1996.

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## PROPERTY AND EQUIPMENT

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

## PATENT COSTS

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

## RESEARCH AND DEVELOPMENT

Research and development costs are expensed as incurred.

## INCOME TAXES

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

## NET LOSS PER SHARE

Beginning December 31, 1997, basic earnings per share (EPS) and diluted EPS are computed using the methods prescribed by Statement of Financial Accounting Standard No. 128, EARNINGS PER SHARE (SFAS 128). Basic EPS is calculated using the weighted average number of common shares outstanding for the period and diluted EPS is computed using the weighted average number of common shares and dilutive common equivalent shares outstanding. Prior period amounts have been restated to conform with the presentation requirements of SFAS 128. Given that the Company is in a loss position, there is no difference between basic EPS and diluted EPS since the common stock equivalents would be antidilutive.

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All earnings per share amounts in the following table are presented and, where necessary, restated to conform to the SFAS 128 requirement.

Year Ended December 31,	1997	1996
- - - - -	- - - - -	- - - - -
Net loss	\$ (3,615,990)	\$ (2,087,362)
Weighted average number of shares of common stock and common stock equivalents outstanding:		
Weighted average number of common shares outstanding for computing basic earnings per share	10,078,962	8,233,548
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*
	- - - - -	- - - - -
Weighted average number of common shares outstanding for computing diluted earnings per		

share	10,078,962	8,233,548
	-----	-----
Net loss per share - basic and diluted	\$ (0.36)	\$ (0.25)
	-----	-----

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

Year Ended December 31,	1997	1996
- - - - -	-----	-----
Warrants and stock options	4,073,309	1,551,272

### 3. SHAREHOLDERS' EQUITY:

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

In November 1996, the shareholders approved a reverse split of the Company's outstanding Common Stock on the basis of one share for each three shares of the then-outstanding common stock. The share information in the accompanying financial statements has been retroactively restated to reflect the reverse split. The Common Stock 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.

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

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

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

At December 31, 1997, 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 (loss) and, if presented, earnings (loss) per share, as if the fair value based method of accounting defined in SFAS 123 had been adopted. The Company has elected to account for its stock-based compensation plans under APB 25; however, the Company has computed, for pro forma disclosure purposes, the value of all options granted during 1997 and 1996 using the Black-Scholes options pricing model as prescribed by SFAS 123 using the following weighted average assumptions for grants:

Year Ended December 31, -----	1997 -----	1996 -----
Risk-free interest rate	6.25%	6%
Expected dividend yield	0%	0%
Expected lives	6 Years	4 - 5 Years
Expected volatility	56%	70%

Using the Black-Scholes methodology, the total value of options granted during 1997 and 1996 was \$1,984,033 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 1997 and 1996 was \$3.95 and \$3.72, respectively.

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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:

For the Year Ended December 31, -----	1997 -----		1996 -----	
	As Reported -----	Pro Forma -----	As Reported -----	Pro Forma -----
Net loss	\$ (3,615,990)	\$ (4,949,440)	\$ (2,087,362)	\$ (2,185,676)
Net loss per share - basic and diluted	\$ (0.36)	\$ (0.49)	\$ (0.25)	\$ (0.27)

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, -----	1997 -----		1996 -----	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price



Options outstanding at beginning of year	1,123,838	\$4.73	1,109,839	\$4.69
Granted	502,361	6.51	40,000	6.00
Exercised	(59,903)	4.70	--	--
Canceled	(326,087)	5.29	(26,001)	4.98
Options outstanding at end of year	1,240,209	5.30	1,123,838	4.73
Exercisable at end of year	980,206	\$5.01	960,504	\$4.67

At December 31, 1997, 33,221 shares were available for future grant.

The following table summarizes information about stock options outstanding at December 31, 1997:

Exercise Price	Outstanding Shares at December 31, 1997	Weighted Average Remaining Contractual Life (Years)	Exercisable Options
\$4.56	643,497	4.49	643,497
4.95	148,510	6.46	115,176
6.00	80,116	7.79	16,780
6.38	239,753	9.35	204,753
6.69	100,000	9.70	---
8.13	28,333	9.84	---

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The Company has also issued warrants for the purchase of common stock in conjunction with financing and compensation arrangements. The value of warrants granted in 1997 and 1996 have not been considered in the fair value based method of accounting defined in SFAS 123 as such warrant grants related to the raising of additional equity. A summary of the status of the Company's warrants and changes are presented in the following table:

For the Year Ended December 31,	1997		1996	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Warrants outstanding at beginning of year	427,434	\$4.43	1,324,733	\$1.02
Granted	2,700,000	13.30	60,201	9.00
Exercised	(50,000)	0.1003	(957,500)	0.0003
Canceled	(244,334)	5.39	--	--
Warrants outstanding at end of year	2,833,100	12.88	427,434	4.43

Exercisable at end of year	2,433,100	\$12.99	402,437	\$4.69
	-----	-----	-----	-----
	-----	-----	-----	-----

In connection with the initial public offering, the Company authorized the issuance of the Underwriters' Warrants (the Warrants) and reserved 400,000 shares of Common Stock for issuance upon exercise of such Warrants (including the warrants to purchase common stock issuable upon exercise of the Warrants). The Warrants entitle the holder to acquire up to an aggregate of 200,000 Units at an exercise price of \$10.80 per Unit and are exercisable one year from the date of the initial public offering. Each Unit consists of one share of Common Stock and one redeemable warrant. Each warrant initially entitles the holder thereof to purchase one share of Common Stock at a price of \$13.50 per share.

The following table summarizes information about warrants outstanding at December 31, 1997:

Exercise Price	Outstanding Warrants at December 31, 1997	Weighted Average Remaining Contractual Life (Years)	Exercisable Warrants
-----	-----	-----	-----
\$0.0003	50,899	Varies	50,899
1.14	22,000	Varies	22,000
9.00	60,201	Varies	60,201
10.80	200,000	4.42	--
13.50	2,500,000	Varies	2,300,000

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#### 4. INCOME TAXES:

At December 31, 1997 and 1996, the Company had federal and state tax net operating loss carryforwards of approximately \$12,622,000 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 carryforwards began to expire in 1997 and the state carryforwards will begin to expire in 2008, if not otherwise used. The Internal Revenue Code rules under Section 382 could limit the future use of these losses based on ownership changes and the value of the Company's stock.

The Company had a net deferred tax asset of \$6,260,000 and \$4,660,000 at December 31, 1997 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 increase of approximately \$1,600,000 and \$852,000 for the years ended December 31, 1997 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, 1997, is as follows:

Deferred Tax Asset	Deferred Tax Liability	Total
--------------------	------------------------	-------

	-----	-----	-----
Net operating loss carryforwards	\$ 5,049,000	\$ -	\$ 5,049,000
Accrued expenses	20,000	-	20,000
Depreciation	482,000	-	482,000
Research and development tax credits	930,000	-	930,000
Patent costs	-	(221,000)	(221,000)
	-----	-----	-----
	\$ 6,481,000	\$ (221,000)	6,260,000
	-----	-----	-----
Valuation allowance			(6,260,000)
			-----
			\$ -
			-----
			-----

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	\$ 3,764,000	\$ -	\$ 3,764,000
Accrued expenses	23,000	-	23,000
Depreciation	403,000	-	403,000
Research and development tax credits	660,000	-	660,000
Patent costs	-	(190,000)	(190,000)
	-----	-----	-----
	\$ 4,850,000	\$ (190,000)	4,660,000
	-----	-----	-----
Valuation allowance			(4,660,000)
			-----
			\$ -
			-----
			-----

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#### 5. LEASE OBLIGATIONS:

The Company leases office and laboratory facilities under various noncancelable operating leases through December 2004. Rent expense under these leases was \$313,000 and \$193,000 for the years ended December 31, 1997 and 1996, respectively, and \$1,148,000 for the period from July 22, 1980 through December 31, 1997.

At December 31, 1997, the aggregate noncancelable future minimum payments under these leases were as follows:

Year ending December 31,

1998	\$285,000
1999	269,000
2000	277,000

2001	285,000
2002	294,000
Thereafter	614,000
	-----
Total minimum lease payments	\$2,024,000
	-----
	-----

#### 6. SUBSEQUENT EVENTS:

In November 1997, the Company signed a letter of intent to acquire all of the equity of ImmunoTherapy Corporation (ITC), a privately held biotechnology company based in Seattle, Washington. ITC is developing a therapeutic vaccine targeting cancer. The transaction is expected to close in mid-1998, pending shareholder approval. The preliminary purchase consideration is 2.1 million shares of the Company's common stock and 2.1 million restricted warrants, which had an approximate total value of \$17.3 million at December 31, 1997. The transaction will be accounted for as a purchase.

In connection with the purchase price allocation, the Company will obtain an appraisal of the intangible assets acquired. It is anticipated that substantially all of the intangible assets consist of research and development in process, and will thus be charged to expense in accordance with generally accepted accounting principles.

## EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement"), made this 14th day of July, 1997, by and between ANTIVIRALS INC., an Oregon corporation, with its principal office at 1 SW Columbia Street, Suite 1105, Portland, OR 97258 ("Company"), and PATRICK IVERSEN, PH.D. 8226 Wilson Dr., Ralston, NE 68127 ("Employee").

### RECITALS:

A. Employee, through his education and career as a distinguished researcher, possesses knowledge and skills that are highly desirable to the Company.

B. The Company possesses technology which may benefit significantly from the knowledge and skills of the Employee.

C. The Company desires to employ Employee, subject to appropriate confidentiality and non-competition clauses contained herein, to leverage its technology with Employee's knowledge and skills to the mutual benefit of the Company, the Employee, and to the benefit of the Company's shareholders.

### AGREEMENT:

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the sufficiency of which the parties acknowledge, the parties hereby agree as follows:

1. EMPLOYMENT TERM. The term of employment ("Term") shall commence on October 1, 1997 and shall continue until terminated in accordance with Section 12.

2. DUTIES. Employee shall be responsible to perform such duties as assigned to him from time to time by the Board of Directors of the Company ("Board"). Employee shall be employed by the Company and shall devote his best efforts to the service of the Company throughout the Term. Employee shall devote at least for (40) hours per week to the affairs of the Company. Employee and Company acknowledge and agree that (i) Employee may hold certain offices within certain entities as set forth on Exhibit A to this Agreement, (ii) Employee's devotion of reasonable amounts of time in such capacities, so long as it does not interfere with his performance of services hereunder, shall not conflict with the terms of this Agreement, and (iii) Exhibit A may be amended from time to time by agreement of the parties.

3. COMPENSATION. During the Term the Company shall compensate Employee with an annual salary of \$135,000, payable in accordance with Company's payroll practices in effect from time to time, and less amounts required to be withheld under applicable law and requested to be withheld by Employee. Employee's annual salary shall be subject to review on an annual basis. The Company may but shall not be required to pay bonus compensation to Employee. Except as otherwise provided in this Agreement, the base salary shall be prorated for any period of service less than a full month.

4. EXPENSES. The Company will reimburse Employee for all expenses reasonably incurred by him in discharging his duties for the Company, conditioned upon Employee's submission of written documentation in support of claimed reimbursement of such expenses, and consistent with the Company's expense reimbursement policies in effect from time to time.

5. BENEFITS. Subject to eligibility requirements, Employee shall be entitled to participate in such benefits plans and programs as adopted by the Company from time to time.

6. CONFIDENTIALITY.

(a) In the course of his employment with the Company, it is anticipated that Employee may acquire knowledge (both orally and in writing) regarding confidential affairs of the Company and confidential or proprietary information including: (a) matters of a technical nature, such as know-how, inventions, processes, products, designs, chemicals, compounds, materials, drawings, concepts, formulas, trade secrets, secret processes or machines, inventions or research projects; (b) matters of a business nature, such as information about costs, profits, pricing policies, markets, sales, suppliers, customers, plans for future development, plans for future products, marketing plans or strategies; and (c) other information of a similar nature which is not generally disclosed by the Company to the public, referred to collectively hereafter as "Confidential Information." "Confidential Information" shall not include information generally available to the public. Employee agrees that during the term of this Agreement and thereafter, he (i) will keep secret and retain in the strictest confidence all Confidential Information, (ii) not disclose Confidential Information to anyone except employees of the Company authorized to receive it and third parties to whom such disclosure is specifically authorized, and (iii) not use any Confidential Information for any purpose other than performance of services under this Agreement without prior written permission from the Company.

(b) If Employee is served with any subpoena or other compulsory judicial or administrative process calling for production or disclosure of Confidential Information or if Employee is otherwise required by law or regulation to disclose Confidential Information, Employee will immediately, and prior to production or disclosure, notify the Company and provide it with such information as may be necessary in order that the Company may take such action as it deems necessary to protect its interest.

(c) The provisions of this paragraph 6 shall survive termination of this Agreement.

7. NONCOMPETITION.

(a) Employee agrees that during the Term and for a period of two (2) years following termination of employment with the Company for any reason, he will not directly or indirectly engage in any activity directed toward the development of any uncharged sequence-specific nucleic acid-binding agents or any nucleic acid purification and concentration or detection system using uncharged sequence-specific nucleic acid-binding agents.

(b) Employee agrees that during the Term and for a period of two (2) years following termination of employment with the Company for any reason, he will not directly or indirectly engage in any activity directed towards the development of drug delivery systems related to the "molecular engine" as defined in US patent application Serial No. 60/016,347 and 60/028,609 or in any other patents or patent applications filed or Contemplated at any time during the Term. Patents

or patent applications "Contemplated" are those included, recorded or discussed in the notebooks of researchers employed by or performing services on behalf of the Company.

(c) For a period of two (2) years following termination of employment with the Company for any reason, except with the express written consent of the Company, Employee agrees to refrain from directly or indirectly recruiting, hiring or assisting anyone else to hire, or otherwise counseling to discontinue employment with the Company, any person then employed by the Company or its subsidiaries or affiliates.

(d) The provisions of this paragraph 7 shall survive termination

of this Agreement and the term of employment.

8. COVERED WORK.

(a) All right, title and interest to any Covered Work that Employee makes or conceives (whether alone or with others) while employed by the Company, belong to the Company. This Agreement operates as an actual assignment of all rights in Covered Work to the Company. "Covered Work" means products and Inventions that relate to the actual or anticipated business of the Company or any of its subsidiaries or affiliates, or that result from or are suggested by a task assigned to Employee or work performed by Employee on behalf of the Company or any of its subsidiaries or affiliates, or that were developed in whole or in part on the Company time or using the Company's equipment, supplies or facilities. "Inventions" mean ideas, improvements, designs, computer software, technologies, techniques, processes, products, chemicals, compounds, materials, concepts, drawings, authored works or discoveries, whether or not patentable or copyrightable, as well as other newly discovered or newly applied information or concepts. Attached hereto as Exhibit B is a description of any product or Invention in which Employee had or has any right, title or interest which is not included within the definition of "Covered Work".

(b) Employee shall promptly reveal all information relating to Covered Work and Confidential Information to an appropriate officer of the Company and shall cooperate with the Company, and execute such documents as may be necessary, in the event that the Company desires to seek copyright, patent or trademark protection thereafter relating to same.

(c) In the event that the Company requests that Employee assist in efforts to defend any legal claims to patents or other right, the Company agrees to reimburse Employee for any reasonable expenses Employee may incur in connection with such assistance. This obligation to reimburse shall survive termination of this Agreement and the term of employment.

(d) The provisions of this paragraph 8 shall survive termination of this Agreement and the term of employment.

9. RETURN OF INVENTIONS, PRODUCTS AND DOCUMENTS. Employee acknowledges and agrees that all Inventions, all products of the Company and all originals and copies of records, reports, documents, lists, drawings, memoranda, notes, proposals, contracts and other documentation related to the business of the Company or containing any information described in this paragraph shall be the sole and exclusive property of the Company and shall be returned to the Company immediately upon the termination of Employee's employment with the Company or upon the written request of the Company.

10. INJUNCTION. Employee agrees that it would be difficult to measure damages to the Company from any breach by Employee of paragraph 6, 7, 8 and/or 9 of this Agreement, and that

monetary damages would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee shall breach paragraph 6, 7, 8 and/or 9 of this Agreement, the Company shall be entitled, in addition to all other remedies it may have at law or in equity, to an injunction or other appropriate orders to restrain any such breach without showing or proving any actual damage sustained by the Company.

11. OBLIGATIONS TO OTHERS. Except for items fully disclosed in writing to the Company, Employee represents and warrants to the Company that (i) Employee's employment by the Company does not violate any agreement with any prior employer or other person or entity, and (ii) Employee is not subject to any existing confidentiality or noncompetition agreement or obligation, or any agreement relating to the assignment of Inventions except as has been fully disclosed in writing to the Company.

12. TERMINATION.

(a) Employee may voluntarily terminate his employment with the Company upon giving the Company sixty (60) days' written notice.

(b) The Company may terminate Employee's employment without Cause (as defined below) upon giving Employee thirty (30) days written notice of termination.

(c) Employee's employment with the Company shall terminate upon the occurrence of any one of the following:

(1) Employee's death;

(2) The effective date of a notice sent to Employee stating the Board's determination made in good faith and after consultation with a qualified physician selected by the Board, that Employee is incapable of performing his duties under this Agreement, with or without reasonable accommodation, because of a physical or mental incapacity that has prevented Employee from performing such full-time duties for a period of ninety (90) consecutive calendar days and the determination that such incapacity is likely to continue for a least another ninety (90) such days; and

(3) The effective date of a notice sent to Employee terminating Employee's employment for Cause.

(d) "Cause" means the occurrence of one or more of the following events:

(1) Employee's willful and repeated failure or refusal to comply in any material respect with the reasonable and lawful policies, standards or regulations from time to time established by the Company, or to perform his duties in accordance with this Agreement after notice to Employee of such failure; and

(2) Employee engages in criminal conduct or engages in conduct with respect to the Company that is dishonest, fraudulent or materially detrimental to the reputation, character or standing of the Company.

### 13. TERMINATION COMPENSATION.

(a) Upon Employee's voluntary termination of employment (other than voluntary termination after a Change of Control (as defined below)), or termination of Employee's employment for Cause, the Company shall pay to Employee all compensation due to the date of termination, but shall have no further obligation to Employee hereunder in respect of any period following termination.

(b) Upon the death of Employee, the Company shall pay to Employee's estate or such other party who shall be legally entitled thereto, all compensation due to the date of death, and an additional amount equal to compensation at the rate set forth in this Agreement from the date of death to the final day of the month following the month in which the death occurs.

(c) Upon termination of Employee's employment by the Company other than for Cause, or upon Employee's voluntary termination of employment after a Change of Control, the Company shall pay to Employee an amount equal to twelve (12) months' compensation calculated with reference to Employee's then current annual compensation (exclusive of bonuses), which amount shall be due and payable at termination.

(d) Amounts payable under this Section shall be net of amounts required to be withheld under applicable law and amounts requested to be withheld by Employee.

(e) Upon Termination of Employee's employment by the Company other



than for Cause, all outstanding options granted to Employee pursuant to the Company's 1992 Stock Incentive Plan, which vest with the passage of time (and are not performance related) shall be immediately fully vested.

(f) As used herein, "Change of Control" means the occurrence of any one of the following events: (i) any Person becomes the beneficial owner of twenty-five percent (25%) or more of the total number of voting shares of the Company; (ii) any Person (other than the Persons named as proxies solicited on behalf of the Board of Directors of the Company) holds revocable or irrevocable proxies representing twenty-five percent (25%) or more of the total number of voting shares of the Company; (iii) any Person has commenced a tender or exchange offer, or entered into an agreement or received an option, to acquire beneficial ownership of twenty-five percent (25%) or more of the total number of voting shares of the Company; and (iv) as the result of, or in connection with, any cash tender or exchange offer, merger, or other business combination, sale of assets, or any combination of the foregoing transactions, the persons who were directors of the Company before such transactions shall cease to constitute at least two-thirds (2/3) of the Board of Directors of the Company or any successor entity.

14. NOTICE. Unless otherwise provided herein, any notice, request, certificate or instrument required or permitted under this Agreement shall be in writing and shall be deemed "given" upon personal delivery to the party to be notified or three business days after deposit with the United States Postal Service, by registered or certified mail, addressed to the party to receive notice at the address set forth above, postage prepaid. Either party may change its address by notice to the other party given in the manner set forth in this Section.

15. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the parties and contains all the agreements between them with respect to the subject matter hereof. It also supersedes any and all other agreements or contracts, either oral or written, between the parties with respect to the subject matter hereof.

16. MODIFICATION. Except as otherwise specifically provided, the terms and conditions of this Agreement may be amended at any time by mutual agreement of the parties, provided that before any amendment shall be valid or effective, it shall have been reduced to writing and signed by an authorized representative of the Company and Employee.

17. NO WAIVER. The failure of any party hereto exercise any right, power or remedy provided under this Agreement or otherwise available in respect hereof at law or in equity, or to insist upon compliance by any other party hereto with its obligations, shall not be a waiver by such party of its right to exercise any such or other right, power or remedy or to demand compliance.

18. SEVERABILITY. In the event that any paragraph or provision of this Agreement shall be held to be illegal or unenforceable, such paragraph or provision shall be severed from this Agreement and the entire Agreement shall not fail as a result, but shall otherwise remain in full force and effect.

19. ASSIGNMENT. This Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns, and shall be binding upon Employee, his administrators, executors, legatees, and heirs. In that this Agreement is a personal services contract, it shall not be assigned by Employee.

20. DISPUTE RESOLUTION. Except as otherwise provided in Section 10, the Company and Employee agree that any dispute between Employee and the Company or its officers, directors, employees, or agents in their individual or Company capacity of this Agreement, shall be submitted to a mediator for nonbinding, confidential mediation. If the matter cannot be resolved with the aid of the mediator, the Company and Employee mutually agree to arbitration of the dispute. The arbitration shall be in accordance with the

then-current Employment Dispute Resolution Rules of the American Arbitration Association ("AAA") before an arbitrator who is licensed to practice law in the State of Oregon. The arbitration shall take place in or near Portland, Oregon. Employee and the Company will share the cost of the arbitration equally, but each will bear their own costs and legal fees associated with the arbitration. However, if any party prevails on a statutory claim which affords the prevailing party attorneys' fees, or if there is a written agreement providing for attorneys' fees, the arbitrator may award reasonable attorneys' fees.

The Company and Employee agree that the procedures outlined in this provision are the exclusive method of dispute resolution.

21. ATTORNEYS' FEES. In the event suit or action is instituted pursuant to Section 10 of this Agreement, the prevailing party in such proceeding, including any appeals thereon, shall be awarded reasonable attorneys' fees and costs.

22. APPLICABLE LAW. This Agreement shall be construed and enforced under and in accordance with the laws of the State of Oregon.

23. COUNTERPARTS. This Agreement may be signed in two counterparts, each of which shall be deemed an original and both of which shall together constitute one agreement.

IN WITNESS WHEREOF, Antivirals Inc. has caused this Agreement to be signed by its duly authorized representative, and Employee has hereunder set his name as of the date of this Agreement.

COMPANY: ANTIVIRALS INC.

By: /s/ ALAN P. TIMMINS

-----  
Alan P. Timmins

EMPLOYEE: /s/ PATRICK IVERSON, PH.D.

-----  
PATRICK IVERSEN, PH.D.

EXHIBIT A

LIST OF OFFICES HELD

SCHEDULE A (to Employment Agreement)

EXHIBIT B

INVENTIONS EXCLUDED FROM COVERED WORKS

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As Independent public accountants, we hereby consent to the incorporation of our report dated February 17, 1998, included in this Form 10-KSB into the Company's previously filed registration Statement No. 333-34047 on Form S-8.

ARTHUR ANDERSEN LLP

Portland, Oregon,  
March 27, 1998

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