SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K/A
CURRENT REPORT

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (date of earliest event reported):
August 21, 1998

AVANT Immunotherapeutics, Inc.
(f/k/a T Cell Sciences, Inc.)
(Exact Name of Registrant as specified in its charter)

Delaware	0-15006	13-3191702
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

119 Fourth Avenue, Needham, MA 02494-2725
(Address of principal executive offices and zip code)

(781) 433-0771
(Registrant's telephone number, including area code)

Item 5. Other Events

On August 21, 1998, AVANT Immunotherapeutics, Inc. (f/k/a "T Cell Sciences, Inc.," herein referred to as the "Registrant," the "Company" or "AVANT") acquired (the "Merger") Virus Research Institute, Inc., a Delaware corporation ("VRI"), pursuant to an Agreement and Plan of Merger dated as of May 12, 1998 (the "Agreement") by and among the Registrant, TC Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Registrant and VRI. Under the terms of the Agreement, VRI became a wholly-owned subsidiary of AVANT. The following is a discussion of the business and operations of AVANT, including T Cell Diagnostics, Inc. and its newly acquired subsidiary VRI. The following discussion supplements, but does not replace, the description of the Registrant's business included in Item 1 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 1997.

DESCRIPTION OF AVANT

General

AVANT is a biopharmaceutical company that uses novel applications of immunology to prevent and treat diseases caused by both the enemy within (autoimmune diseases, cardiovascular diseases, cancer and inflammation) and the enemy without (infectious diseases and organ transplant rejection). Each of the Company's products address large market opportunities for which current therapies are inadequate or non-existent.

AVANT's products derive from a broad set of complementary technologies with the ability to inhibit the complement system, regulate T and B cell activity, and enable the creation and delivery of preventative and therapeutic vaccines. The Company is using these technologies to develop vaccines and immunotherapeutics that prevent or treat disease caused by infectious organisms, and drugs and treatment vaccines that modify undesirable activity by the body's own proteins or cells.

Complement Inhibitors: AVANT is developing a new class of therapeutics that inhibit the complement system, a key triggering mechanism for the inflammatory response. Medical problems that result from excessive complement activation represent multi-billion dollar market opportunities. These include reperfusion injury -- the vascular and tissue damage that occurs following a heart attack, stroke or surgical procedure where the patient's blood supply is shut off and then restored; hyperacute or chronic organ rejection following transplantation; acute inflammatory injury to the lungs; autoimmune diseases; and Alzheimer's disease. In a Phase I/II trial, AVANT's first complement product, TP10, demonstrated positive clinical efficacy and safety in patients with reperfusion injury following lung transplantation. The Company is also in preclinical development with a second complement inhibitor, TP20, which inhibits neutrophils and can be targeted to specific sites.

Atherosclerosis Treatment Vaccine: AVANT is developing a novel treatment vaccine aimed at increasing levels of high-density lipoprotein (HDL, or so-called "good" cholesterol). Low levels of HDL are associated with an increased risk of atherosclerosis, which in turn leads to heart disease and stroke, among other health problems. The vaccine stimulates the production of antibodies to cholesteryl ester transfer protein (CETP), which mediates the balance between HDL and low-density lipoprotein (LDL, or "bad" cholesterol). In

preclinical studies, the CETP vaccine increased HDL levels and significantly reduced atherosclerotic lesions in blood vessels as compared with an untreated control group. AVANT plans to initiate clinical trials of its CETP vaccine during the first half of 1999.

T Cell Regulators: Based on 15 years of research, AVANT has developed a world-leading

understanding of the T cell-mediated immune response and the signal transduction pathways involved in its control. The T cell antigen receptor (TCAR) program, now under development by Astra AB, aims to treat autoimmune diseases by selectively inhibiting disease-causing immune cells without impairing normal immune functions. Astra plans to initiate Phase II clinical trials in multiple sclerosis with a product from this program in the second half of 1998.

Vaccines and Immunotherapeutics: AVANT is developing both preventive vaccines against important human pathogens, and treatment vaccines and immunotherapeutics that fight disease by turning the immune system against chronic viral infections, cancerous cells, or harmful proteins made by the body itself.

Preventative Vaccines for Infectious Diseases: The Company has developed several novel delivery technologies that address shortcomings in currently available delivery methods as well as provide new methods of vaccine delivery. These vaccine delivery systems, which are based on a novel polymer (Adjumer(TM) and Micromer(TM) vaccines) have the potential to improve existing injectable vaccines and to permit intranasal and oral vaccine delivery. The Company currently has several vaccines in clinical development on its own and with corporate partners.

Therapore Immunotherapeutics: Therapore is a proprietary technology that uses an injectable bacterial protein system to deliver protein and peptide antigens into human cells in order to generate potent cell-mediated immune responses against those antigens. The Company plans to employ Therapore to develop novel immunotherapeutics for the treatment of chronic viral infections and cancers. AVANT expects to initiate human clinical trials of its first Therapore-based product, a treatment vaccine for melanoma, in the first half of 1999.

The executive offices of AVANT are located at 119 Fourth Avenue, Needham, Massachusetts 02494, and AVANT's telephone number is (781) 433-0771.

Strategy

AVANT's strategy is to utilize its expertise to design and develop vaccine and immunotherapeutic products that have significant and growing market potential; to establish commercial alliances that permit funding of clinical development and rapid commercialization; and to retain rights to certain important market opportunities.

Develop Novel Vaccine and Immunotherapeutic Delivery Systems. AVANT is developing a portfolio of vaccine and immunotherapeutic delivery systems to address shortcomings in currently available delivery methods, as well as to provide new methods of vaccine and immunotherapeutic product delivery. AVANT's vaccine delivery systems, which are based on a novel polymer, have the potential to improve existing injectable vaccines and to permit intranasal and oral delivery of vaccines. These systems may be applicable to most of the vaccines in routine use and may enable the introduction of new vaccines to prevent bacterial or viral diseases for which there is currently no adequate treatment or prevention. AVANT intends to pursue the broad application of its current vaccine and immunotherapeutic delivery systems, as well as to continue to invest in the development of new vaccine and immunotherapeutic delivery technologies.

Develop Proprietary Vaccines. AVANT is currently developing several proprietary vaccines believed to have significant commercial promise. AVANT is continuing to seek licenses for suitable antigens to be used to develop vaccines with a significant market potential. AVANT believes that the development of its own proprietary vaccines complements its development of novel vaccine and immunotherapeutic delivery

systems and that its ability to combine its vaccine and immunotherapeutic delivery technology with its own proprietary antigens may lead to the introduction of new vaccines and immunotherapeutic products with significant competitive advantage.

Develop Immunotherapeutic Products. AVANT is developing Therapore, a proprietary technology that uses a bacterial protein system for the injectable delivery of proteins and peptides to generate potent cell-mediated immune responses. Based on preclinical research, including animal studies conducted to date, AVANT believes that Therapore will be able to deliver both peptide and protein antigens into human cells, which may lead to the development of potent cell-mediated immune responses. AVANT believes Therapore could be a core technology in the development of novel immunotherapeutic products and that the development of these products complements its development of novel vaccine delivery systems and proprietary vaccines. AVANT intends to pursue the broad application of Therapore across the field of persistent viral infections and certain cancers.

Establish Collaborations for Product Development and Commercialization. AVANT has entered into and intends to seek additional collaborative agreements with established vaccine and pharmaceutical companies to develop vaccines and immunotherapeutic products utilizing AVANT's delivery systems and its collaborators' antigens. By entering into these collaborations, AVANT believes it may benefit from the antigen development work already performed by its collaborators and from access to their extensive clinical testing capabilities, wide distribution and marketing infrastructure and market presence. This strategy may permit AVANT to take advantage of the expertise of its collaborators and thereby expedite commercialization of products incorporating AVANT's technologies.

AVANT intends to seek collaborators who will assume responsibility for completing clinical testing of certain of the Company's proprietary vaccines and immunotherapeutics which are currently being developed by the Company and for manufacturing and marketing those products. AVANT intends to develop such proprietary vaccines and immunotherapeutics to a point at which such collaborations could be established and could be commercially favorable to the Company. AVANT believes that this strategy will allow the successful market introduction of products incorporating AVANT's technologies without AVANT incurring the substantial costs associated with Phase II and III clinical development.

Therapeutic Drug Discovery Programs

Complement Inhibition. AVANT is developing a new class of therapeutics that inhibit a part of the immune system called the complement system. The complement system is a series of proteins that are important initiators of the body's acute inflammatory response against disease, infection and injury. Excessive complement activation also plays a role in certain persistent inflammatory conditions. When complement is activated, it helps to identify and eliminate infectious pathogens and damaged tissue. In certain situations, however, excessive complement activation may destroy viable and healthy tissue and tissue which, though damaged, might recover. This excessive response compounds the effects of the initial injury or introduces unwanted tissue destruction in clinical situations such as organ transplants, cardiovascular surgeries and treatment for heart attacks. Independent, published studies have reported that AVANT's lead compound, TP10, a soluble form of naturally occurring Complement Receptor 1, effectively inhibits the activation of the complement cascade in animal models. AVANT believes that regulation of the complement system could have therapeutic and prophylactic applications in several acute and chronic conditions, including reperfusion injury from surgery or ischemic disease, organ transplant, multiple sclerosis, Alzheimer's disease, rheumatoid arthritis, and myasthenia gravis. In the United States, several million people are afflicted with these complement-mediated conditions.

AVANT started the complement program in 1988. From 1989 through 1994, TP10 was under development in a joint program with SmithKline Beecham, p.l.c. ("SmithKline") and Yamanouchi Pharmaceutical Co. ("Yamanouchi"). During 1994, AVANT and SmithKline negotiated various amendments to the agreement and, in February 1995, the two companies agreed to a mutual termination by which AVANT regained all rights to the program except for co-marketing rights in Japan, which are retained by SmithKline and Yamanouchi.

Under AVANT's direction, in 1995 the first Phase I clinical trial of TP10 in 24 patients at risk for ARDS was completed. Results of this trial were presented in October 1995 at The American College of Chest Physicians meeting. A second Phase I safety trial for reperfusion injury was completed in December 1995 in 25 patients with first-time myocardial infarctions. This study was presented at the American Heart Association's Joint Conference on Thrombosis, Arteriosclerosis and Vascular Biology in February 1996. In each trial, TP10 demonstrated excellent safety and pharmacokinetic profiles, had a terminal phase half-life of at least 72 hours and was able to inhibit complement activity in a dose-dependent manner.

Based on these favorable results, in January 1996, AVANT initiated a Phase IIa trial in patients with established ARDS. This trial was an open-label, single-dose feasibility trial to determine the potential for efficacy of TP10 in reducing neutrophil accumulation in the lungs and improved clinical outcome of patients with ARDS. During the second half of 1996, AVANT initiated a series of steps, including broadening enrollment criteria, to modify this trial to improve the rate of patient accrual. In December 1997, AVANT completed this Phase IIa trial after it had enrolled nine patients with ARDS arising from a number of different medical conditions. The trial results showed that patients receiving TP10 tended towards improved respiratory performance and improved blood oxygenation. Because the trial included few patients and no placebo control was used, no definitive claims about efficacy could be made.

In August 1996, AVANT began enrollment in a Phase I/II clinical trial in patients undergoing lung transplantation. A goal of the trial was to determine the ability of TP10 to reduce reperfusion injury and improve lung function in patients with end-stage pulmonary disease who were undergoing lung transplant surgery. This study was a randomized, placebo-controlled, double-blind trial consisting of single dosages of 10 mg/kg of TP10 as an intravenous infusion over 30 minutes. The trial was conducted at multiple centers in North America and included a total of 59 patients. In May 1997, AVANT announced the completion of patient accrual. In October 1997, AVANT presented positive preliminary results from the efficacy portion of the trial. In April 1998, AVANT presented final trial results at the International Society of Heart and Lung Transplantation conference. The final results showed that TP10 therapy appeared safe and well tolerated and demonstrated significant efficacy. Treated patients undergoing cardiopulmonary by-pass as part of the transplantation procedure showed significantly decreased intubation time and time on ventilation and a trend toward reduced time in the intensive care unit.

In October 1997, AVANT announced it had entered into a collaborative agreement with Novartis Pharma AG, Basel, Switzerland ("Novartis") relating to the development of TP10 for use in xenotransplantation (animal organs into humans) and allotransplantation (human to human organ transplantation). Under the agreement, AVANT will receive annual option fees and supplies of TP10 for clinical trials, the combination of which is valued at up to approximately $5 million, in return for granting Novartis a two-year option to license TP10 with exclusive worldwide (except Japan) marketing rights. Should Novartis exercise its option to license TP10 and continue development, AVANT will receive an equity investment, licensing fees and milestone payments based upon attainment of certain development and regulatory goals, which has an approximate aggregate value of up to $25 million. AVANT may also receive funding for research as well as royalty payments on eventual product sales.

In addition to TP10, AVANT has identified other product candidates to inhibit activation of the complement system. The lead candidate under research evaluation is a form of sCR1, (TP10), which has been modified by the addition of sLe(x) carbohydrate side chains ("sCR1sLe(x)"). sLe(x) is a carbohydrate which mediates binding of neutrophils to selectin proteins, which appear on the surface of activated endothelial cells as an early inflammatory event. Selectin-mediated binding of neutrophils to activated endothelial cells is a critical event in inflammation. The sCR1sLe(x) molecule has demonstrated increased functional benefits in in vitro and early in vivo experiments. During 1996, AVANT confirmed the presence of the desired carbohydrate structures and their function in in vivo experiments and confirmed the presence of both anti-complement and selectin-binding functions in in vitro experiments. During 1997, AVANT produced additional sCR1sLe(x) material and began preclinical studies in disease-relevant animal models. In November 1997, AVANT received a notice of allowance of claims from the U.S. Patent and Trademark Office for a patent covering sCR1sLe(x).

sCR1sLe(x) may create new and expanded opportunities for AVANT in complement and selectin- dependent indications such as stroke and myocardial infarction. AVANT believes that sCR1sLe(x) has the ability to target the complement-inhibiting activity of sCR1 to the site of inflammation and, at the same time, inhibit the leukocyte/endothelial cell adhesion process.

CETP Vaccine. AVANT is developing a therapeutic vaccine against endogenous cholesteryl ester transfer protein which may be useful in reducing risk factors for atherosclerosis. CETP is a key intermediary in the balance of high-density lipoprotein ("HDL") and low-density lipoprotein ("LDL"). AVANT is developing a vaccine to stimulate an immune response against CETP which it believes may improve the ratio of HDL to LDL cholesterol and reduce the progression of atherosclerosis. AVANT has conducted preliminary studies of rabbits which had been administered the CETP vaccine and fed a high- cholesterol, high-fat diet. In these studies, vaccine-treated rabbits exhibited reduced lesions in their blood vessels compared to a control group of untreated rabbits which developed significant blood vessel lesions. These studies have demonstrated, in animal models, AVANT's ability to break immune tolerance, produce autoreactive antibodies to CETP and reduce the development of blood vessel lesions.

Atherosclerosis is one of the leading causes of morbidity and mortality in the United States and most of the Western world. Current pharmacologic treatments require daily administration and can result in high costs and poor patient compliance. A vaccine directed at lowering CETP activity, such as the one being developed by AVANT, may offer several advantages over conventional approaches, including requiring less frequent dosing, lower costs, reduced side effects, and improved patient compliance.

In September 1996, the National Institutes of Health (the "NIH") awarded AVANT a $100,000, Phase I Small Business Innovation Research ("SBIR") grant for the development of a novel transgenic rat atherosclerosis model, affording better comparison to human atherosclerosis. In February 1997, the NIH awarded AVANT a second $100,000 Phase I SBIR grant to develop a novel plasmid-based vaccine to prevent or treat atherosclerosis. In September 1997, AVANT was awarded a $678,000 Phase II SBIR grant from the NIH which provides funding over a two year period for the continued development of the novel transgenic rat model of atherosclerosis. In January 1998, AVANT received a $96,000 Phase I SBIR grant from the NIH for the development of a novel peptide vaccine to prevent or treat atherosclerosis.

AVANT plans to initiate clinical trials of its CETP vaccine during the first half of 1999.

T Cell Regulators. In early 1992, AVANT entered into a joint development program with Astra AB ("Astra") to develop products resulting from AVANT's proprietary TCAR technology, which utilizes T cell antigen receptor for selectively targeting T cells involved in autoimmune diseases such as multiple sclerosis

and rheumatoid arthritis. The original agreement was modified in December 1993 with Astra assuming all responsibility for the development of the lead antibody products and AVANT retaining leadership of the first peptide product candidate. Under the original and modified agreements, AVANT received funding support of approximately $15 million in the early years with the potential of up to $17 million of additional funding based on clinical progress. By the end of 1995, AVANT had received substantially all of the original funding payments.

In December 1996, AVANT amended its agreement with Astra to transfer certain of its rights to the TCAR technology, including two therapeutic products, ATM027 and ATP012, to Astra, which is solely responsible for further clinical development and commercialization. Under the amended agreement, AVANT could receive royalties from product sales, as well as milestone payments which may total up to $4 million as certain clinical milestones are achieved.

In June 1997, AVANT announced that it received a milestone payment from Astra as one of the products derived from AVANT's TCAR program entered clinical trials for the treatment of multiple sclerosis. In February 1998, Astra announced that Phase I data has shown an effect on the target cells and that there have been no serious adverse effects in the study to date. Astra also announced that it is scheduling Phase II studies to begin later in 1998.

Small Molecule Immunoregulators. As a direct result of over thirteen years of experience working with T cells and building on AVANT's evaluation capabilities in molecular and cellular immunology and small-animal immunology models, AVANT has developed a proprietary screening platform to identify small molecule compounds which may regulate T cell activation. These whole cell screens are based on signal transduction and gene regulation directed to cytokine gene targets. T cell activation plays an important role in solid organ transplant rejection as well as in certain autoimmune diseases. AVANT is seeking to develop an alternative treatment to existing immunosuppressants such as Cyclosporin and FK506 which, due to their toxicity, have limited application. AVANT's basic approach is to combine the biological skills and proprietary screens it has developed with the small molecule libraries created by other biotechnology companies.

In March 1996, AVANT announced the first of a series of collaboration agreements designed to utilize AVANT's proprietary T cell screening and functional assay technology platform to identify small molecule immunoregulatory therapeutic compounds. AVANT entered into a strategic alliance with ArQule, Inc., which provides access to ArQule's proprietary non-peptidic small molecule arrays. AVANT also signed a collaborative agreement with MYCOsearch, Inc., (which was subsequently acquired by OSI Pharmaceuticals, Inc.) which enables AVANT to screen that company's natural products libraries. In December 1997, AVANT completed its initial screening program with OSI Pharmaceuticals, Inc. In October 1997, AVANT entered into a strategic alliance with Repligen, Inc. ("Repligen"), which provides access to Repligen's proprietary, combinatorial chemical library. Under each of these agreements, AVANT and its partners will share rights to compounds identified using AVANT's screens. As of March 1998, AVANT had identified a number of immunostimulator and immunosuppressor compounds from its screening activities. The company is seeking to license these compounds to pharmaceutical companies for further development.

Vaccine and Immunotherapeutic Overview

The Vaccine Market. Vaccines have long been recognized as a safe and cost-effective method for preventing infection caused by certain bacteria and viruses. The Centers for Disease Control and Prevention (the "CDC") have estimated that every dollar spent on vaccination saves $16 in healthcare costs. There are

currently 16 vaccines in routine use in the United States against such life-threatening infectious organisms as tetanus, diphtheria, poliovirus, hepatitis A virus, hepatitis B virus, Haemophilus influenzae B, measles, mumps and rubella. From 1990 to 1996, annual worldwide vaccine sales increased from $1.6 billion to $4.0 billion, a compound annual growth rate of approximately 16.5%. AVANT believes that this growth rate may accelerate as a result of advances in vaccine technologies and formulations that address the shortcomings of existing vaccines. Areas of potential improvement include enhancement of immune responses, which could lead to a reduction in the number of doses required for effective protection as well as effective immunization in a higher percentage of the population, and delivery of vaccines through methods other than injection. The vaccine market is expected to expand due to the introduction of new vaccines utilizing purified antigens, produced as a result of advances in molecular biology. AVANT also believes that the growing awareness and incidence of certain infectious diseases, such as H. pylori, hepatitis C virus, HIV1 and HSV2 infection, together with the availability of new vaccines, could further expand the vaccine market.

The Immune System and Vaccines. The function of the human immune system is to respond to pathogens, including infectious bacteria and viruses, that enter the body. However, a pathogen may establish an infection and cause disease before it is eliminated by an immune response. Antibodies are produced as part of the immune response to antigens, which are components of the pathogen. These antibodies can continue to circulate in the human body for many years, providing continued protection against reinfection by the same pathogen.

Protective antibodies can be produced in both the systemic and mucosal branches of the immune system. The systemic immune system produces IgG antibodies to protect against infection occurring in blood and deep tissue. The mucosal immune system produces IgA antibodies that protect against infection occurring in the mucosal layer lining the digestive, respiratory and genitourinary tracts. Mucosal immunity may act as a first line of defense, by attacking pathogens at the point of entry into the body, prior to systemic penetration, as well as by targeting certain pathogens such as H. pylori, influenza and rotavirus that propagate exclusively at the mucosal layer.

Vaccines are a pre-emptive means of generating a protective antibody response. A vaccine consists of either a weakened pathogen or pathogen-specific, non-replicating antigens which are deliberately administered to induce the production of antibodies. When weakened pathogens are used as a vaccine, they replicate in the body, extending presentation to the immune system and inducing the production of antibodies without causing the underlying disease. When non-replicating antigens are used as a vaccine, they must be delivered in sufficient quantity and remain in the body long enough to generate an effective antibody response. To achieve this goal, many vaccines require multiple administrations. Of the 16 vaccines currently in routine use, 14 are delivered by injection and stimulate only systemic immunity. Only polio and typhoid vaccines can be administered orally and induce both a mucosal and a systemic immune response. Both of these vaccines are live, weakened pathogens that localize in the intestines and do not require a separate vaccine delivery system.

Adjuvants. The antigens contained in many injectable vaccines will not produce an immune response sufficient to confer protection against infection and require the use of an adjuvant to sustain the presentation of the antigens to the human immune system. Alum (aluminum hydroxide) is the only adjuvant currently approved by the United States Food and Drug Administration (the "FDA") for commercial use in humans. While alum has gained widespread use, it does not sufficiently enhance the immune response to permit administration of many existing injected vaccines in a single dose. In the case of certain vaccines, such as influenza, alum is ineffective as an adjuvant.

AVANT believes that alum may not prove to be sufficiently effective for use with a number of the new purified recombinant antigens being developed. Further, alum cannot be used for mucosal delivery of vaccines. Accordingly, AVANT believes that there is a significant need for a new adjuvant that is safe, works with a wide variety of antigens, and induces a protective immune response with only one or two injections. These attributes could result in certain benefits, including cost savings and improved patient compliance.

Vaccine and Immunotherapeutic Delivery Systems

AVANT is developing a portfolio of proprietary vaccine delivery systems designed to improve the efficacy of existing vaccines, and permit the development of new vaccines and immunotherapeutics for the prevention and/or treatment of infectious diseases and certain cancers. The following table summarizes AVANT's two main vaccine delivery systems and Therapore:

DELIVERY SYSTEM	COMPOSITION	DELIVERY METHOD	POTENTIAL BENEFITS (1)	STATUS (1)
Adjumer(TM)	Water Soluble Polymer	Injectable	Enhanced systemic immune response; fewer injections	Phase II influenza conducted; analysis of results ongoing
Micromer(TM)	Polymer Microparticles	Intranasal or oral	Systemic and mucosal immune responses; no injection	Late stage preclinical development
Therapore	Genetically Engineered Bacterial Protein Vector	Injectable	Enhanced cell-mediated immunity	Preclinical research

(1) The summary information included in the above table is qualified in its entirety by the detailed discussion of each of the vaccine and immunotherapeutic delivery systems that follows and which appears under "Vaccine and Immunotherapeutic Development Programs" below.

Vaccine and Immunotherapeutic Development Programs

Adjumer(TM). AVANT is developing Adjumer(TM), a proprietary vaccine delivery system, as an adjuvant to enhance the immune response to injected vaccines. The water soluble nature of Adjumer(TM), which utilizes a polyphosphazene polymer ("PCPP"), facilitates a simple aqueous-based manufacturing process for vaccines, thereby preserving the integrity of the antigen.

In preclinical studies conducted by AVANT, Adjumer(TM) demonstrated sustained presentation of influenza, hepatitis B, HSV2, HIV1 and tetanus antigens to the immune system. In those preclinical studies, single intramuscular injections of Adjumer(TM)-formulated vaccines elicited a higher immune response than

both alum-formulated vaccines and non-adjuvanted vaccines as measured by resulting IgG antibody levels. In additional preclinical studies, an Adjumer(TM)-formulated influenza vaccine using lower antigen doses sustained higher antibody levels over a longer time period than both alum-formulated vaccines and non- adjuvanted vaccines. In certain other preclinical studies Adjumer(TM)-formulated vaccines produced an effective immune response in a higher percentage of animals than in animals receiving existing vaccine formulations. Furthermore, in these studies, as well as tests conducted using Adjumer(TM) alone, AVANT observed no material adverse reactions when Adjumer(TM) was administered at effective levels.

Based on these preclinical results, AVANT believes that an Adjumer(TM)-formulated vaccine may provide a number of benefits over existing injected vaccines. These benefits include reducing the number of doses required for an effective immune response, thereby improving compliance; providing cost savings as a result of the reduction in the number of doses and the amount of antigen required; and increasing the time period over which immune protection can be sustained. In addition, based on the results of these preclinical studies, AVANT believes that an Adjumer(TM)-formulated vaccine may be able to induce an immune response in a number of subjects who would not otherwise respond to existing vaccines. The first human clinical trials of a vaccine using Adjumer(TM) as a delivery system commenced in 1996.

AVANT and Pasteur Merieux Connaught ("PMC"), the leading worldwide supplier of influenza vaccine, are currently collaborating on the development of an Adjumer(TM)-formulated vaccine for influenza. Influenza accounts for an average of 20,000 deaths annually in the United States; the greatest number of fatalities occur among the elderly. In preclinical studies conducted by AVANT and PMC, an Adjumer(TM)- formulated influenza vaccine produced a significantly enhanced and longer-lived immune response than one of the influenza vaccines currently on the market. PMC completed Phase I human clinical trials of the Adjumer(TM)-formulated influenza vaccine in France during 1997. A total of 48 young and 41 elderly adults participated in this study, which was designed to measure the safety and level of immune response to the vaccine. Based on the results of the study, which showed the Adjumer(TM)-formulated vaccine was well tolerated and elicited improved responses, a Phase II safety and immunogenicity study was initiated by PMC during 1997. A total of 430 elderly adults participated in the Phase II study, which was conducted in Peru. Preliminary results of the Phase II clinical trial confirmed that the Adjumer(TM)-formulated vaccine was well tolerated. However, results of the Phase II study appear to be inconsistent in certain respects with Phase I results. The degree of improvement in immune responses elicited by the Adjumer(TM) influenza vaccine was less in comparison to the control group than was elicited in the Phase I study. In the Phase II study the control group receiving the unadjuvanted vaccine generated higher immune responses than observed in the Phase I study control group. AVANT and PMC are currently analyzing and assessing the results of the Phase II study to determine the appropriate next steps to take with the clinical development of the product.

PMC is continuing to investigate the use of Adjumer(TM) in other vaccines. AVANT understands that PMC plans to initiate Phase I trials of Adjumer(TM)-formulated vaccines for RSV in late 1998 and for Lyme disease in early 1999.

Rotavirus Vaccine. AVANT is also developing a novel vaccine against rotavirus infection. Rotavirus, a major cause of diarrhea and vomiting in infants, affects approximately 80% of the approximately 4 million infants born each year in the United States. As a result, on an annual basis, about 500,000 infants require medical attention and 50,000 are hospitalized. The economic burden in the United States is estimated at over $1 billion in direct and indirect costs. AVANT anticipates that in the United States a vaccine against rotavirus disease will become a universal pediatric vaccine. AVANT has completed Phase I clinical trials of the orally delivered live human rotavirus vaccine selected to elicit a broadly protective immune response to the most prevalent strains of rotavirus. During 1997, AVANT completed a

Phase I/II clinical trial designed to define the optimal vaccine dose and optimal age for immunization. Based on the assessment of the safety and immunogenicity of the vaccine, AVANT initiated a Phase II efficacy study in 1997. This trial, conducted at four U.S. medical centers, was designed to examine the vaccine's ability to prevent rotavirus disease and to further study the safety of the vaccine. A total of 215 infants were enrolled in the study and have been immunized with the vaccine. In August 1998, the company announced positive results from this trial. The results showed that approximately 90 percent of the vaccinated infants were protected from rotavirus disease and demonstrated a statistical significance at $p<0.001$. Examination of the safety data revealed only mild transient symptoms in a small number of infants.

As discussed under "Collaborative Agreements", subject to the successful completion of the Phase II clinical trial and the development by SmithKline of a viable manufacturing process, SmithKline will assume financial responsibility for all subsequent clinical and development activities.

Micromer(TM). AVANT is conducting ongoing research on Micromer(TM), a proprietary vaccine delivery system designed to facilitate the mucosal (intranasal or oral) delivery of antigens and stimulate both the systemic and mucosal branches of the immune system.

In preclinical studies conducted by AVANT, several Micromer(TM)-formulated antigens delivered intranasally elicited both a mucosal ("IgA") immune response and a systemic ("IgG") immune response. IgA antibodies were detected at all mucosal sites, and the level of IgG antibodies was comparable to the level obtained through Adjumer(TM)-formulated injections of the same antigen. A Micromer(TM)-formulated influenza vaccine required only a single, intranasal dose to provide an immune response sufficient to protect the animals against subsequent infection by the influenza virus. In addition to conducting further research on the Micromer(TM)-formulated influenza vaccine, AVANT has commenced research on additional Micromer(TM)-formulated vaccines. AVANT is currently conducting animal studies in preparation for a Phase I trial of a Micromer(TM)-formulated influenza vaccine.

Therapore. During 1997, AVANT received an exclusive worldwide license to Therapore from Harvard College. AVANT believes that Therapore will be the core of a novel technology for the development of immunotherapeutics. AVANT is conducting preclinical research to evaluate this system for the treatment of persistent viral infections, such as Hepatitis B, Hepatitis C and HIV, and certain cancers including melanoma.

Therapore is composed of two bacterial proteins that in in vitro tests have delivered peptides or proteins into human cells to utilize normal cellular processes to induce potent cell-mediated immune responses. These responses include the generation of long-lived cytotoxic T-lymphocytes ("CTL") and alterations in the amounts of cellular cytokines produced. Both responses are considered necessary for the effective treatment of persistent viral infections and the resolution of certain cancers. Potential products utilizing Therapore technology could include peptides or proteins from viruses such as Hepatitis B, Hepatitis C and HIV, all of which cause persistent infections, and from a range of cancers, including breast, colon, lung, melanoma and prostate. Each of these indications represents a large market with a need for safe and effective treatments.

Early stage preclinical research studies indicate that Therapore may be distinguished from other delivery systems. AVANT believes that the therapeutic and preventative potential of Therapore is significant for two reasons: (i) the targeting of Therapore is highly efficient, such that in in vitro tests potent cell-mediated immune responses have been induced by the delivery of minute quantities of Therapore constructs; and (ii) Therapore has the potential to deliver large peptides and proteins for processing by

normal cellular mechanisms, which may permit broad immune coverage in humans. As a result of these characteristics, AVANT believes that Therapore-delivered antigens will be capable of producing an enhanced cell-mediated response with fewer injections than other products currently under development by AVANT's competitors.

AVANT is currently conducting animal studies in preparation for a Phase I trial of a Therapore formulated Melanoma immunotherapeutic vaccine during the first half of 1999.

Diagnostic Business

In March 1996, AVANT realigned certain of its operations and sold the operations and research product line of its wholly-owned subsidiary, T Cell Diagnostics, Inc. to Endogen, Inc. ("Endogen") for $3.0 million, while retaining AVANT's TRAx diagnostic product franchise. AVANT received a five year convertible subordinated note for $2.0 million combined with approximately $1.0 million used to repay obligations under AVANT's operating lease. AVANT recognized a gain on this transaction of $0.3 million. On February 10, 1997, AVANT received approximately $1.8 million following the conversion of the remaining balance of the Endogen note into shares of Endogen common stock, which were subsequently sold.

AVANT retained all rights to the TRAx(R) product franchise and has agreed to source the manufacture of TRAx(R) kits from Endogen in a separate supply contract. TCD signed a sales and distribution contract for the United States market with Diamedix Corporation ("Diamedix") in December 1995. Diamedix is a wholly-owned subsidiary of Ivax Corporation with a history of selling enzyme immunoassays in the in vitro diagnostics market. The contract covers the TRAx(R) microtiter plate format products. AVANT is focusing its efforts on establishing a partnership for the TRAx(R) technology.

Collaborative Agreements

Novartis. In October 1997, AVANT announced it had entered into a collaborative agreement with Novartis relating to the development of TP10 for use in xenotransplantation (animal organs into humans) and allotransplantation (human to human organ transplantation). Under the agreement, AVANT will receive annual option fees and supplies of TP10 for clinical trials, the combination of which is valued at up to approximately $5 million, in return for granting Novartis a two-year option to license TP10 with exclusive worldwide (except Japan) marketing rights. Should Novartis exercise its option to license TP10 and continue development, AVANT will receive an equity investment, licensing fees and milestone payments based upon attainment of certain development and regulatory goals, which has an approximate aggregate value of up to $25 million. AVANT may also receive funding for research as well as royalty payments on eventual product sales.

Yamanouchi. AVANT started the complement program in 1988. From 1989 through 1994, TP10 was under development in a joint program with SmithKline and Yamanouchi. During 1994, AVANT and SmithKline negotiated various amendments to the agreement and, in February 1995, the two companies agreed to a mutual termination by which AVANT regained all rights to the program except for co-marketing rights in Japan, which are retained by SmithKline and Yamanouchi.

Pasteur Merieux Connaught. AVANT is a party to two license agreements entered into in December 1994 and August 1995 with PMC relating to Adjumer(TM)- and Micromer(TM)-formulated vaccines, respectively, for the prevention of a variety of infectious diseases. Under the agreements PMC has been granted the exclusive right to make, use and sell Adjumer(TM)- and Micromer(TM)-formulated vaccines for

prevention of influenza, Lyme disease and diseases caused by meningococcus and the co-exclusive right (exclusive, except for the right of AVANT or one other person licensed by AVANT) to make, use and sell Adjumer(TM)- and Micromer(TM)-formulated vaccines directed against five other pathogens, including pneumococcus and RSV. The licenses to PMC apply to specified territories, including North and South America, Europe, Africa, Thailand and the countries of the former Soviet Union. AVANT has retained rights to make, use, sell and license Adjumer(TM)- and Micromer(TM)-formulated vaccines against the subject infections in most of the Far East, including China and Japan, subject to certain geographical extension rights available to PMC.

PMC made a $3.0 million equity investment in AVANT in December 1994 upon the execution of the agreement relating to Adjumer(TM). In addition, in connection with this collaboration, in 1996 PMC made milestone payments of $4.5 million to AVANT and an additional equity investment of $1.0 million in AVANT. Contingent upon achieving certain milestones, PMC has agreed to pay AVANT up to an additional $6.2 million in connection with the development of Adjumer(TM)-formulated vaccines for influenza and Lyme disease. Contingent upon achieving certain milestones, PMC has also agreed to make payments, on a product by product basis with respect to the development of other Adjumer(TM)- and Micromer(TM)-formulated vaccines. PMC is required to fund all costs associated with the development and commercialization, including the costs of clinical trials, of any vaccines it elects to develop utilizing AVANT's technology. In addition, AVANT will be entitled to royalties based on net sales of any vaccine products developed and sold by PMC pursuant thereto.

In connection with its agreement relating to Micromer(TM), PMC sponsored research at AVANT into Micromer(TM)-formulated vaccines directed against influenza and parainfluenza virus ("PIV"). This arrangement, pursuant to which AVANT received $2.5 million, covered a two-year period that ended in 1997.

Under the agreement relating to Adjumer(TM), AVANT was required to use commercially reasonable efforts to establish a process capable of yielding quantities of clinical grade PCPP for use by PMC in clinical studies. AVANT has satisfied this requirement. In addition, AVANT has facilitated the production of commercial grade PCPP in a contractor's current Good Manufacturing Practice ("cGMP") compliant manufacturing facility according to agreed upon specifications. The PMC agreement, while reserving to PMC the right to manufacture PCPP, anticipates that AVANT will supply PCPP under a cost-plus supply agreement.

Pasteur Merieux-Oravax. AVANT has a collaborative arrangement with Pasteur Merieux-Oravax ("PM-O") for the use of its VibrioVec(TM) bacterial delivery system. The agreement grants to PM-O a worldwide license to use VibrioVec(TM) for the delivery of specific H. pylori antigens. A license issue fee as well as research support payments totaling $1.0 million has been paid to AVANT under this agreement. The agreement also provides for future milestone payments and royalties on net sales of any future products developed by PM-O. An option previously granted to PM-O for the use of PCPP in the delivery of H. pylori vaccines has expired.

SmithKline. During 1997, AVANT entered into an agreement with SmithKline to collaborate on the development and commercialization of AVANT's oral rotavirus vaccine. Rotavirus infection causes acute diarrhea and dehydration in infants. Under the terms of the agreement, SmithKline received an exclusive worldwide license to commercialize AVANT's rotavirus vaccine. AVANT was responsible for continuing the Phase II clinical efficacy study of the rotavirus vaccine which was completed in August 1998. Subject to the development by SmithKline of a viable manufacturing process, SmithKline is required to assume responsibility for all subsequent clinical trials and all other development activities. SmithKline

made an initial license payment in 1997 upon execution of the agreement and has agreed to make further payments upon the achievement of certain milestones. In addition, AVANT will be entitled to royalties based on net sales of the rotavirus vaccine.

Heska Corporation. In January 1998, AVANT entered into an agreement with Heska Corporation ("Heska") whereby Heska was granted the right to use PCPP in certain animal health vaccines. The agreement provides for the payment of license fees, milestone and royalties based on net sales of PCPP-formulated animal vaccines.

Competition

Competition in the biotechnology and vaccine industries is intense. AVANT faces competition from many companies in the United States and abroad, including a number of large pharmaceutical companies, firms specialized in the development and production of vaccines, adjuvants and vaccine and immunotherapeutic delivery systems and major universities and research institutions. Most of AVANT's competitors have substantially greater resources, more extensive experience in conducting preclinical studies and clinical testing and obtaining regulatory approvals for their products, greater operating experience, greater research and development and marketing capabilities and greater production capabilities than those of AVANT. There can be no assurance that AVANT's competitors will not develop technologies and products that are safer or more effective than any which are being developed by AVANT or which would render AVANT's technology and products obsolete and noncompetitive, and AVANT's competitors may succeed in obtaining FDA approval for products more rapidly than AVANT. There can be no assurance that the vaccines and immunotherapeutic products under development by AVANT and its collaborators will be able to compete successfully with existing products or products under development by other companies, universities and other institutions or that they will obtain regulatory approval in the United States or elsewhere. AVANT believes that the principal competitive factors in the vaccine and immunotherapeutic market are product quality, measured by efficacy and safety, ease of administration and price.

AVANT's competitive position will also depend upon its ability to attract and retain qualified personnel, obtain patent protection or otherwise develop proprietary products or processes and secure sufficient capital resources for the often lengthy period between technological conception and commercial sales.

Manufacturing

AVANT has no manufacturing facilities, no experience in volume manufacturing and plans to rely upon collaborators or contractors to manufacture its proposed products for both clinical and commercial purposes. AVANT believes that there is currently sufficient capacity worldwide for the production of its potential products by AVANT's collaborators or through contract manufacturers.

To date, AVANT has been arranging with contract manufacturers for the manufacture of PCPP in quantities sufficient for preclinical and clinical studies, and for clinical trial supplies of AVANT's rotavirus vaccine candidate. If commercialized, manufacture of the AVANT rotavirus vaccine will be the responsibility of SmithKline, which has received from AVANT a world-wide exclusive license to commercialize this vaccine.

AVANT has a contract for the development and initial supply of the starting materials for PCPP but does not yet have a written contract with a manufacturer for commercial production of PCPP. AVANT has facilitated the production of commercial grade PCPP in a contractor's cGMP manufacturing facility according to agreed upon specifications. The PMC agreement, while reserving to PMC the right to manufacture PCPP, anticipates that AVANT will supply PCPP under a cost-plus supply agreement. AVANT has also entered into an arrangement with an academic institution for process development related to its Therapore system. The manufacturing processes for AVANT's other vaccine and immunotherapeutic delivery systems and vaccines utilize known technologies. AVANT believes that the products it currently has under development can be readily scaled up to permit manufacture in commercial quantities. However, there can be no assurance that AVANT will not encounter difficulties in scaling up the manufacturing processes.

AVANT intends to establish manufacturing arrangements with manufacturers that comply with the FDA's requirements and other regulatory standards, although there can be no assurance that AVANT will be able to do so. In the future, AVANT may, if it becomes economically attractive to do so, establish its own manufacturing facilities to produce any vaccine products that it may develop. In order for AVANT to establish a manufacturing facility, AVANT will require substantial additional funds and will be required to hire and retain significant additional personnel and comply with the extensive cGMP regulations of the FDA applicable to such facility. The product manufacturing facility would also need to be licensed for the production of vaccines by the FDA.

Marketing

Under the terms of existing and future collaborative agreements, AVANT relies and expects to continue to rely on the efforts of its collaborators for the sale and marketing of its products. There can be no assurance that AVANT's collaborators will market vaccine products incorporating AVANT's technologies, or, if marketed, that such efforts will be successful. The failure of AVANT's collaborators to successfully market products would have an adverse effect on AVANT's business.

AVANT has retained, and in the future intends to retain, marketing rights to certain of its vaccine and immunotherapeutic delivery systems and vaccine candidates in selected geographic areas and for specified indications. AVANT intends to seek marketing and distribution agreements and/or co-promotion agreements for the distribution of its products in such territories and for such indications. AVANT believes that these arrangements could enable AVANT to generate a higher level of financial return than might be obtained from early stage licensing and collaboration agreements. AVANT has no marketing and sales staff and limited experience relating to vaccine marketing. If AVANT determines in the future to engage in direct marketing of vaccine products, it will be required to recruit an experienced marketing group and incur significant additional expenditures. There can be no assurance that AVANT will be able to establish a successful marketing force.

Patents, Licenses and Proprietary Rights

Patents, Licenses and Proprietary Rights. AVANT's policy is to protect its technology by filing patent applications and obtaining patent rights covering its own technology, both in the United States and in foreign countries. In addition, AVANT has acquired and will seek to acquire as needed or desired, exclusive rights of others through assignment or license to complement its portfolio of patent rights. AVANT also relies on trade secrets, unpatented know-how and technological expertise and innovation to develop and maintain its competitive position.

Patents. The successful development and marketing of products by AVANT will depend in part on its ability to create and maintain intellectual property, including patent rights. AVANT has established a proprietary patent position in the areas of complement inhibitor technology, vaccine technologies and diagnostic technologies, and it is the owner or exclusive licensee of numerous patents and pending applications around the world. Although AVANT continues to pursue patent protection for its products, no assurance can be given that any pending application will issue as a patent, that any issued patent will have a scope that will be of commercial benefit, or that AVANT will be able to successfully enforce its patent position against competitors.

In the area of complement molecules, AVANT is co-owner with The Johns Hopkins University and Brigham & Women's Hospital, whose rights AVANT has exclusively licensed, of patents and application covering inventions relating to complement receptor type 1 (CR1). These rights are based in part on the work of Dr. Douglas Fearon and include U.S. and foreign patents which claim nucleic acid sequences encoding CR1, sCR1 and active fragments; purification methods; and therapeutic uses of sCR1. AVANT also owns or has rights to a number of other patent applications relating to sCR1, sCR1sLe(x) and other complement inhibitor molecules and their uses. In November 1997, AVANT received a notice of allowance from the U.S. Patent and Trademark Office for its patent application covering sCR1sLe(x) and other complement inhibitory proteins.

In April 1996, AVANT announced that it had licensed portions of its patent and technology rights regarding CR1 to CytoTherapeutics, Inc. ("CytoTherapeutics") for use in protecting CytoTherapeutics' proprietary cell-encapsulation products for the delivery of therapeutic substances to the central nervous system.

In December 1996, AVANT amended its agreement with Astra to transfer certain of its patent rights and licenses to the TCAR technology to Astra. This transfer includes patent applications which have resulted to date in U.S. patents covering the DNA, protein, protein fragments and antibodies relating to the Alpha TCAR and the DNA, full-length proteins and antibodies relating to Beta TCAR, and two European patents covering Beta TCAR inventions. In addition, AVANT has transferred recent filings on T cell antigen receptor inventions resulting from the partnership with Astra.

In the area of diagnostics, AVANT is the owner of several patents relating to TRAx(R) CD4 and CD8 and other applications of the TRAx(R) product technologies. The first U.S. patent covering the TRAx(R) CD4 and CD8 products issued on June 11, 1996. In February 1998, AVANT received a notice of allowance of claims for the U.S. patent and Trademark Office for a patent application covering the TRAx(R) Test Kit.

In the area of vaccine technology, AVANT owns issued U.S. patents and corresponding foreign applications directed to the use of vaccines incorporating AVANT's Adjumer(TM) vaccine delivery technology, and directed to the use of vaccines incorporating AVANT's Micromer(TM) vaccine delivery technology. Further, AVANT owns and has licensed other U.S. patents and patent applications, and corresponding foreign applications, directed to technology that may be useful for AVANT's Micromer(TM) and Adjumer(TM) vaccine delivery systems. AVANT has an exclusive license to a United States patent application, and corresponding foreign applications, directed to a vector construct that is used in AVANT's VibrioVec(TM) vaccine delivery system; AVANT has an exclusive license to an issued U.S. patent directed to a rotavirus strain antigen which forms the basis of AVANT's rotavirus vaccine; and AVANT has an exclusive license to a U.S. patent application, and corresponding foreign applications, directed to a defective HSV2 virus for use in AVANT's vaccine directed against genital herpes. AVANT also has an exclusive license to U.S. patent applications directed to technology that may be useful for AVANT's Therapore system. AVANT has also filed patent applications in the U.S. and selected foreign countries relating to

control of CETP activity through vaccination.

There can be no assurance that patent applications owned by or licensed to AVANT will result in granted patents or that, if granted, the resultant patents will afford protection against competitors with similar technology. It is also possible that third parties may obtain patent or other proprietary rights that may be necessary or useful to AVANT. In cases where third parties are first to invent a particular product or technology, it is possible that those parties will obtain patents that will be sufficiently broad to prevent AVANT from using certain technology or from further developing or commercializing certain vaccine and immunotherapeutic systems and vaccine candidates. If licenses from third parties are necessary but cannot be obtained, commercialization of the covered products might be delayed or prevented.

Although a patent has a statutory presumption of validity in the United States, the issuance of a patent is not conclusive as to validity or as to the enforceable scope of the patent claims. Thus, there can be no assurance that AVANT's issued patents or any patents subsequently issued to or licensed by AVANT will not be successfully challenged in the future. The validity or enforceability of a patent after its issuance by the Patent and Trademark Office can be challenged in litigation. If the outcome of the litigation is adverse to the owner of the patent, third parties may then be able to use the invention covered by the patent without payment. There can be no assurance that AVANT's patents will not be infringed or that the coverage of its patents will not be successfully avoided by competitors through design innovation.

AVANT is aware that others, including universities and companies, have filed patent applications and have been granted patents in the United States and other countries which claim subject matter potentially useful or necessary to the commercialization of AVANT's products. The ultimate scope and validity of existing or future patents which have been or may be granted to third parties, and the availability and cost of acquiring rights in those patents necessary to the manufacture, use or sale of AVANT's products presently cannot be determined by AVANT.

AVANT uses a mutated Vibrio cholerae in its VibrioVec(TM) vaccine delivery system. AVANT is aware of an issued U.S. patent which claims a culture of mutated Vibrio cholerae. AVANT believes that only one claim (the "Claim") of the patent may be pertinent to the company's VibrioVec(TM) system. The remaining claims of the patent cover other cultures which AVANT believes are not pertinent to VibrioVec(TM). AVANT has received an opinion of counsel from Fish & Richardson, P.C. that, based on the analysis set forth in their opinion and the facts known to them, the Claim is invalid. It should be noted that a party challenging validity of a patent has the burden of proving invalidity and that the outcome of any litigation cannot be predicted with certainty. Accordingly, there can be no assurance that, if litigated, a court would conclude that the Claim is invalid.

In addition, AVANT is aware of a foreign patent with claims that could conflict with AVANT's vaccine candidates and vaccine delivery systems. AVANT believes that the relevant claims under this patent do not extend to or restrict AVANT's activities, however there can be no assurance that a foreign court would reach the same conclusion. AVANT is also aware of an issued U.S. patent relating to the same technology covered by a patent application to which it has been granted an exclusive license and therefore anticipates that it will be involved in an interference proceeding prior to marketing its herpes vaccine.

In addition to the patents referred to in the previous two paragraphs, there may be other patent applications and issued patents belonging to competitors that may require AVANT to alter its vaccine candidates and vaccine and immunotherapeutic delivery systems, pay licensing fees or cease certain activities. If the Company's product candidates conflict with patents that have been or may be granted to competitors, universities or others, the patent owners could bring legal actions against AVANT claiming

damages and seeking to enjoin manufacturing and marketing of the patented products. If any such actions are successful, in addition to any potential liability for damages, AVANT could be required to obtain a license in order to continue to manufacture or market the affected products. There can be no assurance that AVANT would prevail in any such action or that any license required under any such third party patent would be made available on acceptable terms or at all. AVANT believes that there may be significant litigation in the biotechnology and vaccine industries regarding patent and other intellectual property rights. If AVANT becomes involved in such litigation, it could consume substantial resources.

Licenses. AVANT has entered into several significant license agreements relating to technology that is being developed by AVANT and/or its collaborators, including licenses from: Massachusetts Institute of Technology covering certain proprietary technologies for vaccine delivery related to PCPP microparticles; Penn State Research Foundation covering the production of polyphosphazene polymer; Harvard College relating to proprietary technology involving genetically altered Vibrio and Salmonella typhi strains; Cincinnati Children's Hospital involving proprietary rights and technologies relating to an attenuated rotavirus strain for a rotavirus vaccine; Harvard College and the Dana Farber Cancer Institute relating to a genetically-altered HSV2 virus for use in a genital herpes virus vaccine; and Harvard College for the proprietary technology related to Therapore, a novel immunotherapy delivery system to be developed for delivery of products for the treatment of persistent viral infections and certain cancers. In general, these institutions have granted AVANT an exclusive worldwide license (with right to sublicense) to make, use and sell products embodying the licensed technology, subject to the reservation by the licensor of a non-exclusive right to use the technologies for non-commercial purposes. Generally, the term of each license is through the expiration of the last of the patents issued with respect to the technologies covered by the license. AVANT has generally agreed to use reasonable efforts to develop and commercialize licensed products and to achieve certain milestones and pay license fees, milestone payments and royalties based on the net sales of the licensed products or to pay a percentage of sublicense income. If AVANT breaches its obligations, the licensor has the right to terminate the license, and, in some cases, convert the license to a non-exclusive license.

Proprietary Rights. AVANT also relies on unpatented technology, trade secrets and confidential information, and no assurance can be given that others will not independently develop substantially equivalent information and techniques or otherwise gain access to AVANT's know-how and information, or that AVANT can meaningfully protect its rights in such unpatented technology, trade secrets and information. AVANT requires each of its employees, consultants and advisors to execute a confidentiality agreement at the commencement of an employment or consulting relationship with AVANT. The agreements generally provide that all inventions conceived by the individual in the course of employment or in providing services to AVANT and all confidential information developed by, or made known to, the individual during the term of the relationship shall be the exclusive property of AVANT and shall be kept confidential and not disclosed to third parties except in limited specified circumstances. There can be no assurance, however, that these agreements will provide meaningful protection for AVANT's information in the event of unauthorized use or disclosure of such confidential information.

Government Regulation

AVANT's activities and products are significantly regulated by a number of governmental entities, including the FDA in the United States and by comparable authorities in other countries. These entities regulate, among other things, the manufacture, testing, safety, effectiveness, labeling, documentation, advertising and sale of AVANT's products. Product development within this regulatory framework takes a number of years and involves the expenditure of substantial resources. Many products that initially appear promising ultimately do not reach the market because they are found to be unsafe or ineffective when tested.

In the United States, vaccines and immunotherapeutics for human use are subject to FDA approval as "biologics" under the Public Health Service Act and "drugs" under the Federal Food, Drug and Cosmetic Act. The steps required before a new product can be commercialized include: preclinical studies in animals, clinical trials in humans to determine safety and efficacy and FDA approval of the product for commercial sale.

The FDA provides that human clinical trials may begin thirty (30) days after receipt and review of an Investigational New Drug ("IND") application, unless the FDA requests additional information or changes to the study protocol within that period. Authorization to conduct a clinical trial in no way assures that the FDA will ultimately approve the product. Clinical trials are usually conducted in three sequential phases; in a Phase I trial, the product is given to a small number of healthy volunteers to test for safety (adverse effects). Phase II trials are conducted on a limited group of the target patient population; safety, optimal dosage and efficacy are studied. A Phase III trial is performed in a large patient population over a wide geographic area to prove that significant efficacy exists. The FDA has ongoing oversight over all these trials and can order a temporary or permanent discontinuation if that action is warranted. Such an action could materially and adversely affect AVANT.

The results of the clinical trials and all supporting data are submitted to the FDA for approval. A Biologics License Application ("BLA") is submitted for a biologic product; a New Drug Application (an "NDA") for a drug product. The interval between IND filing and BLA/NDA filing is usually at least several years due to the length of the clinical trials; and the BLA/NDA review process can take over a year. During this time the FDA may request further testing, additional trials or may turn down the application. Even with approval, the FDA frequently requires post-marketing safety studies (known as Phase IV trials) to be performed.

The FDA requires that the manufacturing facility that produces a licensed product meet certain standards, undergo an inspection and obtain an establishment license prior to commercial marketing.

The Advisory Committee on Immunization Practices ("ACIP") of the CDC has a role in setting the public market in the United States for the vaccine products AVANT intends to develop. The ACIP makes recommendations on the appropriate use of vaccines and related products and the CDC develops epidemiologic data relevant to vaccine requirements and usage.

To market its products abroad, AVANT is subject to varying foreign regulatory requirements. Although international efforts are being made to harmonize these requirements, applications must currently be made in each country. The data necessary and the review time varies significantly from one country to another. Approval by the FDA does not ensure approval by the regulatory bodies of other countries.

AVANT's collaborators are subject to all of the above-described regulations in connection with the commercialization of products utilizing AVANT's technology.

Product Liability

The testing and marketing of vaccines and immunotherapeutics entail an inherent risk of product liability attributable to unwanted and potentially serious health effects. If and when AVANT manufactures vaccines which are recommended for routine administration to children, AVANT will be required to participate in the National Vaccine Injury Compensation Program. This program compensates children having adverse reactions to certain routine childhood immunizations with funds collected through an excise tax from the manufacturers of these vaccines.

AVANT has clinical trial liability insurance coverage in the amount of $2 million. However, there can be no assurance that such insurance coverage is or will continue to be adequate or available. AVANT intends to seek product liability insurance coverage prior to commercialization of its product candidates but there can be no assurance that insurance will be available at all or in sufficient amounts to protect AVANT at a reasonable cost.

Legal Proceedings

AVANT is not a party to any legal proceedings.

Item 7. Financial Statements, Pro Forma Financial Statements and Exhibits

(a) Financial Statements of Business Acquired

INDEX TO VIRUS RESEARCH INSTITUTE, INC.'S FINANCIAL STATEMENTS

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)
BALANCE SHEETS

	JUNE 30, 1998	DECEMBER 31, 1997
Current assets:		
Cash and cash equivalents	$ 5,039,879	$ 2,488,963
Marketable securities	10,369,111	15,968,923
Contract receivable	0	1,000,000
Interest receivable	144,316	352,186
Prepaid expenses	542,051	273,224
Other current assets	36,694	42,616
Total current assets	16,132,051	20,125,912
Noncurrent assets:		
Leasehold improvements and equipment (net of accumulated depreciation and amortization of $2,596,446 at June 30, 1998 and $2,416,568 at December 31, 1997)	784,847	715,234
Other assets	34,473	37,193
Total noncurrent assets	819,320	752,427
Total assets	$ 16,951,371	$ 20,878,339
Current liabilities:		
Accounts payable	$ 140,047	$ 24,769
Accrued consulting and research fees	1,213,145	709,295
Accrued employee benefits	121,636	91,636
Accrued legal	204,707	192,453
Other accrued expenses	298,500	377,987
Current portion of lease obligation payable	21,852	72,352
Total current liabilities	1,999,887	1,468,492
Stockholders' equity:		
Preferred stock -- $.001 par value; 5,000,000 shares authorized, none issued	--	--
Common stock -- $.001 par value; 30,000,000 shares authorized; 9,044,992 shares issued at June 30, 1998 and 8,928,314 shares issued at December 31, 1997	9,045	8,928
Additional paid-in capital	52,025,302	51,930,441
Deficit accumulated during the development stage	(37,082,863)	(32,529,522)
Total stockholders' equity	14,951,484	19,409,847
Total liabilities and stockholders' equity	$ 16,951,371	$ 20,878,339

SEE NOTES TO FINANCIAL STATEMENTS

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)
STATEMENT OF OPERATIONS

	THREE MONTHS ENDED JUNE 30,		SIX MONTHS ENDED JUNE 30,		CUMULATIVE SINCE INCEPTION
	1998	1997	1998	1997	(1991)
REVENUE:					
Licensing and option revenue	$ 0	$ 250,000	$ 51,111	$ 250,000	$ 6,946,667
Research and development revenue	0	387,491	0	774,982	4,165,180
Interest income	238,089	339,816	502,064	672,596	3,025,453
TOTAL REVENUE	238,089	977,307	553,175	1,697,578	14,137,300
EXPENSES:					
Research and development	1,788,199	1,672,085	3,642,038	3,372,561	35,208,573
General and administrative	596,604	634,833	1,260,253	1,346,851	12,569,250
Depreciation	87,915	98,140	179,878	228,747	2,698,794
Interest expense	11,112	17,010	24,347	34,995	743,546
TOTAL EXPENSES	2,483,830	2,422,068	5,106,516	4,983,154	51,220,163
NET LOSS	($2,245,741)	($1,444,761)	($4,553,341)	($3,285,576)	($37,082,863)
Basic and diluted net loss per share	($ 0.25)	($ 0.16)	($ 0.51)	($ 0.37)	
Shares used in computing basic and diluted net loss per common share	9,024,296	8,892,995	8,983,987	8,877,493	

SEE NOTES TO FINANCIAL STATEMENTS

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)
STATEMENTS OF CASH FLOWS

	SIX MONTHS ENDED JUNE 30,		CUMULATIVE SINCE INCEPTION
	1998	1997	(1991)
Cash flows from operating activities:			
Net Loss	($4,553,341)	($ 3,285,576)	($37,082,863)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	179,878	232,743	2,749,320
Conversion of accrued interest to preferred stock	0	0	58,373
Changes in operating assets and liabilities:			
Contract receivable	1,000,000	0	0
Increase in prepaid expenses and other assets	(52,315)	(486,493)	(634,408)
Increase (decrease) in accounts payable and accrued expenses	581,894	(18,305)	1,978,034
Increase in deferred revenue	0	150,000	0
Net cash used in operating activities	(2,843,884)	(3,407,631)	(32,931,544)
Cash flows from investing activities:			
Purchases (redemptions) of marketable securities, net	5,599,812	(7,537,770)	(10,369,111)
Capital expenditures	(249,491)	(177,968)	(3,398,738)
Other	0	0	(46,182)
Net cash provided by (used in) investing activities	5,350,321	(7,715,738)	(13,814,031)
Cash flows from financing activities:			
Proceeds from notes payable	0	0	7,973,668
Sale and leaseback related to capital acquisitions	0	0	751,311
Principal payments on lease obligations	(50,499)	(75,525)	(889,764)
Sale of common stock	94,978	20,602	27,808,181
Sale of preferred stock	0	0	19,258,613
Offering costs	0	0	(3,112,941)
Founders' shares reacquired	0	0	(846)
Purchase of treasury stock	0	0	(2,768)
Net cash provided by (used in) financing activities	44,479	(54,923)	51,785,454
Net increase (decrease) in cash and cash equivalents	2,550,916	(11,178,292)	5,039,879
Cash and cash equivalents, beginning of period	2,488,963	15,209,180	0
Cash and cash equivalents, end of period	$ 5,039,879	$ 4,030,888	$ 5,039,879
Supplemental disclosure of cash flow information:			
Interest paid during the period	$ 7,793	$ 15,775	$ 265,986

SEE NOTES TO FINANCIAL STATEMENTS

VIRUS RESEARCH INSTITUTE, INC.
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 1998

(1) FINANCIAL STATEMENT PRESENTATION

The unaudited financial statements of Virus Research Institute, Inc. (the "Company") herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (SEC) and, in the opinion of management, reflect all adjustments (consisting of normal recurring accruals) necessary to present fairly the results of operations for the interim periods presented. Certain information and footnote disclosure normally included in financial statements prepared in accordance with generally accepted accounting principals have been condensed or omitted pursuant to such rules and regulations; however, management believes that the disclosures are adequate to make the information presented not misleading. These financial statements and the notes thereto should be read in conjunction with the financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1997. The results for the interim period presented are not necessarily indicative of the results for the full fiscal year.

(2) NET LOSS PER COMMON SHARE

During 1997, the Company adopted Statement of Financial Accounting Standard No. 128, "Earnings per Share" requiring certain changes in the calculation of per share results. As the Company has reported net losses from operations in the years presented, the computation for basic and diluted earnings per share is identical.

(3) RECENT DEVELOPMENTS

On May 12, 1998, the Company announced that it has signed a definitive merger agreement with T Cell Sciences, Inc. (T Cell) whereby the Company will be acquired by T Cell. Under the terms of the merger agreement, which is subject to shareholder and regulatory approval, T Cell will issue 1.55 shares of its common stock and 0.2 warrants for each share of the Company's common stock. Each warrant represents the right to purchase one share of T Cell's common stock for $6.00 per share and will expire five years from the closing date. It is anticipated that a significant portion of the purchase price will be written off as in-process technology.

T Cell is a biopharmaceutical company engaged in the discovery and development of innovative drugs using novel applications of immunology to prevent and treat cardiovascular, pulmonary and immune disorders.

Consummation of the merger is subject to the fulfillment of certain conditions, including approval of the merger by the Company's stockholders, approval of the issuance of T Cell's common stock and warrants by its stockholders and listing of the shares of T Cell's common stock issuable in connection with the merger or upon exercise of T Cell's warrant's on the Nasdaq National Market. It is expected that the consummation of the merger will occur as soon as practicable after the satisfaction of all such conditions. T Cell has filed a Registration Statement on Form S-4 covering the shares of T Cell's common stock to be issued in connection with the merger.

REPORT OF INDEPENDENT AUDITORS

The Board of Directors and Stockholders
Virus Research Institute, Inc.
Cambridge, Massachusetts

We have audited the accompanying balance sheets of Virus Research Institute, Inc. (a development stage company) as at December 31, 1997 and December 31, 1996, and the related statements of operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1997, and for the period from February 11, 1991 (inception) through 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 abut 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 enumerated above present fairly, in all material respects, the financial position of Virus Research Institute, Inc. at December 31, 1997 and December 31, 1996, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 1997, and the period from February 11, 1991 (inception) through December 31, 1997 in conformity with generally accepted accounting principles.

RICHARD A. EISNER & COMPANY, LLP

Cambridge, Massachusetts
January 30, 1998

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)

BALANCE SHEETS

	December 31, 1997	December 31, 1996
CURRENT ASSETS:		
Cash and cash equivalents (Note E)	$ 2,488,963	$ 15,209,180
Marketable securities (Note E)	15,968,923	10,339,985
Contract receivable (Note C)	1,000,000	--
Interest receivable	352,186	218,285
Prepaid expenses	273,224	220,534
Other current assets	42,616	659
Total current assets	20,125,912	25,988,643
NONCURRENT ASSETS:		
Marketable securities (Note E)	0	499,891
Leasehold improvements and equipment (net of accumulated depreciation and amortization of $2,416,568 at December 31, 1997 and $2,015,483 at December 31, 1996) (Note D)	715,234	881,363
Other assets	37,193	67,634
Total noncurrent assets	752,427	1,448,888
Total assets	$ 20,878,339	$ 27,437,531
CURRENT LIABILITIES:		
Accounts payable	$ 24,769	$ 43,809
Accrued consulting and research fees	709,295	810,677
Accrued employee benefits	91,636	71,636
Accrued legal	192,453	112,000
Other accrued expenses	377,987	229,123
Current portion of lease obligation payable (Note F(2))	72,352	155,079
Total current liabilities	1,468,492	1,422,324
Lease obligation payable, less current portion (Note F(2))	--	64,351
Commitments (Notes C and F)		
Stockholders' equity (Notes A and G):		
Preferred stock--$.001 par value; 5,000,000 shares authorized, none issued	--	--
Common stock--$.001 par value; 30,000,000 shares authorized; 8,928,314 shares issued at December 31, 1997 and 8,845,027 shares issued at December 31, 1996	8,928	8,845
Additional paid-in capital	51,930,441	51,907,179
Deficit accumulated during the development stage	(32,529,522)	(25,965,168)
Total stockholders' equity	19,409,847	25,950,856
Total liabilities and stockholders' equity	$ 20,878,339	$ 27,437,531

See Notes to Financial Statements

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF OPERATIONS

	Year Ended December 31,			February 11, 1991 (Inception) Through
	1997	1996	1995	December 31, 1997
REVENUE (NOTE B(1)):				
Licensing and option revenue	$ 905,556	$ 4,520,000	$ 770,000	$ 6,895,556
Research and development revenue	1,599,982	1,476,449	1,067,480	4,165,180
Interest income	1,298,857	851,082	126,249	2,523,389
Total revenue	3,804,395	6,847,531	1,963,729	13,584,125
EXPENSES:				
Research and development (Note C)	7,557,055	5,262,507	5,734,427	31,566,535
General and administrative	2,344,638	2,328,204	1,854,732	11,308,997
Depreciation	401,085	673,436	583,654	2,518,916
Interest and other expense	65,971	165,320	87,944	719,199
Total expenses	10,368,749	8,429,467	8,260,757	46,113,647
Net loss	$ (6,564,354)	$ (1,581,936)	$ (6,297,028)	$ (32,529,522)
Basic and diluted net loss per common share	$ (0.74)			
Shares used in computing basic and diluted net loss per common share	8,897,784			
Pro forma basic and diluted net loss per common share		$ (0.21)	$ (1.03)	
Shares used in computing pro forma basic and diluted net loss per common share		7,639,726	6,104,671	

See Notes to Financial Statements

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In Capital	Deficit Accumulated During Development Stage	Total
	Shares	Par Value			
Sale of common stock	1,667	$ 2	$ 498	$ --	$ 500
Net loss--February 11, 1991 (inception) through December 31, 1991				(862,597)	(862,597)
Balance December 31, 1991	1,667	2	498	(862,597)	(862,097)
Sale of common stock	607	1	1,819		1,820
Recapitalization: 1,000 for 1 stock split	2,271,060	2,271	(2,271)		--
Surrender of common stock by HCV II	(1,291,667)	(1,292)	905		(387)
Sale of common stock	48,275	48	7,193		7,241
Net loss for the year				(3,967,604)	(3,967,604)
Balance December 31, 1992	1,029,942	1,030	8,144	(4,830,201)	(4,821,027)
Cancellation of shares pursuant to founders' plan amendment	(282,000)	(282)	(564)		(846)
Purchase and cancellation of treasury shares	(105,917)	(106)	(2,662)		(2,768)
Stock options exercised	83	--	12		12
Net loss for the year				(5,927,221)	(5,927,221)
Balance December 31, 1993	642,108	642	4,930	(10,757,422)	(10,751,850)
Stock options exercised	1,475	2	321		323
Founder option exercised	43,333	43	37,007		37,050
Stock warrants exercised	185	--	178		178
Net loss for the year				(7,328,782)	(7,328,782)
Balance December 31, 1994	687,101	687	42,436	(18,086,204)	(18,043,081)
Stock options exercised	2,903	3	1,766		1,769
Common stock warrants issued in conjunction with notes payable			90,000		90,000
Net loss for the year				(6,297,028)	(6,297,028)
Balance December 31, 1995	690,004	690	134,202	(24,383,232)	(24,248,340)
Conversion of notes payable to investors	217,927	218	987,874		988,092
Cashless exercise of stock warrants	17,363	17	(17)		--
Conversion of redeemable convertible preferred stock	5,553,579	5,554	26,003,825		26,009,379
Stock options exercised	66,154	66	40,900		40,966
Shares issued at Initial Public Offering	2,300,000	2,300	27,597,700		27,600,000
Costs of offering			(2,857,305)		(2,857,305)
Net loss for the year				(1,581,936)	(1,581,936)
Balance December 31, 1996	8,845,027	8,845	51,907,179	(25,965,168)	25,950,856
Cashless exercise of stock warrants	20,924	21	(21)		--
Stock options exercised	62,363	62	23,283		23,345
Net loss for the year				(6,564,354)	(6,564,354)
Balance December 31, 1997	8,928,314	$ 8,928	$ 51,930,441	$ (32,529,522)	$ 19,409,847

See Notes to Financial Statements

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CASH FLOWS

	Year Ended December 31,			February 11, 1991 (Inception) Through
	1997	1996	1995	December 31, 1997
Cash flows from operating activities:				
Net loss	$ (6,564,354)	$ (1,581,936)	$ (6,297,028)	$ (32,529,522)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	409,077	700,188	599,435	2,569,442
Conversion of accrued interest to preferred stock	--	46,026	--	58,373
Changes in operating assets and liabilities:				
Contract receivable	(1,000,000)	--	--	(1,000,000)
(Increase) decrease in prepaid expenses and other assets	(198,108)	(164,869)	112,784	(582,093)
Increase in accounts payable and accrued expenses	128,896	127,320	157,611	1,396,140
Net cash used in operating activities	(7,224,489)	(873,271)	(5,427,198)	(30,087,660)
Cash flows from investing activities:				
Purchases of marketable securities, net of redemptions	(5,129,047)	(10,839,876)	--	(15,968,923)
Capital expenditures	(234,955)	(349,312)	(129,561)	(3,149,247)
Other	--	--	--	(46,182)
Net cash used in investing activities	(5,364,002)	(11,189,188)	(129,561)	(19,164,352)
Cash flows from financing activities:				
Proceeds from notes payable	--	--	1,000,000	7,973,668
Sale and leaseback related to capital acquisitions	--	--	250,000	751,311
Principal payments on lease obligations	(155,070)	(174,503)	(183,344)	(839,265)
Sale of common stock	23,344	27,640,966	1,769	27,713,203
Sale of preferred stock	--	1,500,140	--	19,258,613
Offering costs	--	(2,875,140)	(980)	(3,112,941)
Founders' shares reacquired	--	--	--	(846)
Purchase of treasury stock	--	--	--	(2,768)
Net cash provided by (used in) financing activities	(131,726)	26,091,463	1,067,445	51,740,975
Net increase (decrease) in cash and cash equivalents	(12,720,217)	14,029,004	(4,489,314)	2,488,963
Cash and cash equivalents, beginning of period	15,209,180	1,180,176	5,669,490	--
Cash and cash equivalents, end of period	$ 2,488,963	$ 15,209,180	$ 1,180,176	$ 2,488,963
Supplemental disclosure of cash flow information:				
Interest paid during the period	$ 27,530	$ 63,473	$ 61,915	$ 258,193

See Notes E, F and G with respect to noncash financing and leasing transactions.

See Notes to Financial Statements

VIRUS RESEARCH INSTITUTE, INC.
(A DEVELOPMENTAL STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 1997

(NOTE A)--THE COMPANY:

Virus Research Institute, Inc. (the "Company") is a development stage company engaged in the discovery and development of systems for the delivery of vaccines and immunotherapeutics, and improved and novel vaccines for adults and children.

The Company has incurred substantial losses since inception while it has been in the development stage and such losses are expected to continue. In June 1996, the Company completed an initial public offering of 2,300,000 shares of common stock for $12.00 per share, resulting in net proceeds of approximately $24,743,000. The Company anticipates that the proceeds from the initial public offering in conjunction with payments received from collaborative partners will allow the Company to meet its obligations through December 31, 1999.

(NOTE B)--SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

(1) Revenue recognition:

Nonrefundable, noncreditable licensing and option fees and milestone payments are recognized when they are earned in accordance with the performance requirements and contractual terms. Research and development revenues and grants are recognized over the period of performance under the terms of the related agreements.

Licensing revenue represents amounts paid by companies for the use of or access to the Company's proprietary technology. Option revenue represents payments for the right to evaluate the Company's proprietary technology which may or may not result in a licensing or collaborative development agreement. Research and development revenue represents amounts earned by the Company from several collaborative partners for sponsored research activities. Certain of the Company's collaborators are also stockholders of the Company.

(2) Depreciation and amortization:

Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized using the straight-line method over the life of the lease.

(3) Patent and licensing costs:

As a result of research and development efforts conducted by the Company, it has received and applied for, and is in the process of applying for, a number of patents to protect proprietary inventions and licenses to use certain intellectual property. Costs incurred in connection with patent applications and licenses have been expensed as incurred and are reflected as general and administrative expenses.

(4) Cash and cash equivalents:

The Company considers all highly liquid investments with maturities of three months or less, when acquired, to be cash equivalents. Cash equivalents are recorded at cost, which approximates fair value.

(5) Investments in marketable securities:

In addition to cash equivalents, the Company has investments in corporate and municipal debt securities that are classified in the balance sheet as held-to-maturity in accordance with the provisions of Statement of Financial Accounting Standard No. 115 (SFAS No. 115), "Accounting for Certain Instruments in Debt and Equity Securities." Held-to-maturity investments are securities the Company has the positive intent and ability to hold to maturity. These securities are accounted for at amortized cost, which approximates fair value.

(6) Income taxes:

Deferred income taxes are recognized for the tax consequences in future years for differences between the tax bases of assets and liabilities and their financial reporting amounts at each year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. aluation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the tax payable for the period and the change during the period in deferred tax assets and liabilities.

(7) 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. Estimates are used when accounting for depreciation and amortization, taxes and contingencies.

(8) Stock-based compensation:

In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 123, "Accounting for Stock-Based Compensation." The Company adopted this standard in 1996 by making the required note disclosures only. Therefore, the adoption of this standard has not had an effect on the Company's financial position or results of operations.

(9) Net loss per share:

During 1997, the Company adopted Statement of Financial Accounting Standard No. 128, "Earnings per Share" requiring certain changes in the calculation of per share results. As the Company has reported net losses from operations in the years presented, the computation for basic and diluted earnings per share is identical.

Pro forma net loss per common share is based on the pro forma weighted average number of common shares outstanding during the periods presented as adjusted to reflect the conversion of all preferred stock on a retroactive basis as of January 1, 1995 or date of issuance, if later.

(NOTE C)--RESEARCH, LICENSE AND CONSULTING AGREEMENTS:

The Company has entered into various research, license and consulting agreements to support its research and development activities. These agreements generally expire over several future years although some are automatically renewable on an annual basis unless canceled by either party. Amounts charged to operations in connection with these agreements for the years ended December 31, 1997, 1996 and 1995 amounted to approximately $705,000, $650,000 and $1,255,000, respectively. The Company expects to incur similar expenses in future years. Some of the above agreements contain provisions for future royalties to be paid on sales of products developed under the agreements.

During 1997, the Company entered into an agreement pursuant to which the Company licensed certain patents and technology to a collaborator. Under the terms of the agreement, the collaborator is required to pay the Company $400,000 for licensing rights and $600,000 for research which was completed as of December 31, 1997. The total $1,000,000 is recorded as a contract receivable at December 31, 1997. The agreement also provides for future payments contingent upon the achievement of certain milestones.

(NOTE D)--LEASEHOLD IMPROVEMENTS AND EQUIPMENT:

Leasehold improvements and equipment, including approximately $413,000 acquired under capital leases, are stated at cost and are summarized as follows:

	December 31,	
	1997	1996
Laboratory furniture, fixtures and equipment	$1,537,121	$1,366,074
Office furniture, fixtures and equipment	291,963	246,800
Leasehold improvements	1,302,718	1,283,972
Total	3,131,802	2,896,846
Less accumulated depreciation and amortization	2,416,568	2,015,483
Balance	$ 715,234	$ 881,363

(NOTE E)--INVESTMENTS IN DEBT SECURITIES:

As of December 31, 1997 and 1996, the aggregate fair value of the held-to-maturity securities was $15,966,179 and $16,866,045, respectively. These amounts include an unrealized loss of $2,744 at December 31, 1997 and an unrealized gain of $26,056 at December 31, 1996.

These securities are reflected in the balance sheet as follows:

	December 31,	
	1997	1996
Cash equivalents	$ --	$ 6,000,113
Marketable securities, maturing within one year	$15,968,923	$10,339,985
Marketable securities, long term	$ --	$ 499,891

(NOTE F)--COMMITMENTS:

(1) Operating lease:

The Company has an operating lease for office and research facilities which expires in December 2001. The Company has the option to renew the lease for an additional five years. The lease also provides that the Company pay all real estate taxes levied against the premises. The lease requires minimum annual rentals in 1998 through 2001 of $294,000.

Rent expense for 1997, 1996 and 1995 amounted to approximately $332,000, $267,000 and $269,000, respectively.

(2) Capital lease:

The Company has entered into several capital leases for equipment, including sale and leaseback transactions. Future minimum payments under these leases at December 31, 1997 amount to $72,352.

(NOTE G)--CAPITALIZATION:

(1) Warrants:

The Company has issued warrants to purchase common and preferred stock in connection with the issuance of notes payable and the establishment of capital leases.

NOTES TO FINANCIAL STATEMENTS--(Continued)

Warrants outstanding at December 31, 1997 are as follows:

Security	Number of Shares	Exercise Price Per Share	Expiration Date
Common stock	23,006	$ .96	February 9, 2004
Common stock	49,578	1.95	December 14, 2005
Common stock	11,000	9.60	April 12, 2001

The warrant agreements contain antidilution provisions related to future issuances of stock.

(2) Common stock options:

The Company has adopted an equity incentive plan providing for the issuance of restricted stock and the granting of options to purchase up to a combined total of 1,751,176 shares of common stock. The plan provides for the granting of both incentive stock options and nonstatutory stock options. The exercise price for any incentive stock options cannot be less than the fair market value on the date of grant, while the exercise price for nonstatutory options will be determined by the Board of Directors. The vesting periods for all options are determined by the Board of Directors. The Company had the following option activity during 1995, 1996 and 1997:

	Number of Shares	Weighted Average Option Price Per Share
Balance--December 31, 1994	750,220	$ .80
Granted	12,142	$ 1.85
Exercised	(2,903)	$ .61
Cancelled	(11,584)	$ .96
Balance--December 31, 1995	747,875	$ .82
Granted	325,172	$ 6.36
Exercised	(66,154)	$ .62
Cancelled	(14,515)	$ 1.45
Balance--December 31, 1996	992,378	$ 2.64
Granted	104,412	$ 6.97
Exercised	(62,363)	$ .37
Cancelled	(1,765)	$ 5.09
Balance--December 31, 1997	1,032,662	$ 3.23

Options for 539,569 shares are exercisable at December 31, 1997 at a weighted average option price of $1.90 per share, with a weighted average remaining contractual life of approximately 7 years. At December 31, 1997, there were 585,545 shares available for future grant.

(3) Stock-based compensation:

The Company has adopted the disclosure-only provisions of SFAS No. 123, "Accounting for Stock-Based Compensation" but applies Accounting Principles Board Opinion No. 25 and related interpretations in accounting for its plan. These was no compensation expense recognized in 1997, 1996 or 1995. If the Company had elected to recognize compensation cost for the plan based on the fair value at the grant date for awards under the plan, consistent with the method prescribed by SFAS No. 123, net loss per share would have been changed to the pro forma amounts indicated below:

		YEAR ENDED DECEMBER 31,		
		1997	1996	1995
Net loss	As reported	$ (6,564,354)	(1,581,936)	$ (6,297,028)
	Pro forma	(6,776,699)	(1,729,019)	(6,297,309)
Net loss per share	As reported	$ (.74)	$ (.21)	$ (1.03)
	Pro forma	(.76)	(.23)	(1.03)

The fair value of the Company's stock options used to compute pro forma net loss and net loss per share disclosures is the estimated present value at grant date using the Black-Scholes option-pricing model with the following weighted average assumptions for 1997, 1996 and 1995: dividend yield of 2.5%; expected volatility of 45%; a risk free interest rate of 7.3%; and an expected holding period of nine years.

The weighted average grant date fair value of options granted was $2.37 per share, $3.21 per share, and $3.07 per share for the years ended December 31, 1997, 1996 and 1995, respectively.

(NOTE H)--INCOME TAXES:

Through December 31, 1993, pursuant to provisions of the Internal Revenue Code, the Company was deferring all start-up costs because operations, as defined by the Internal Revenue Code, had not commenced. In addition, the Company elected to defer all research and development costs until revenues were generated. Effective January 1994, the Company began generating revenues and commenced operations for tax purposes and is amortizing all costs deferred through December 31, 1993 over 60 months. From January 1994 forward, the Company continues to defer internal research and development costs and amortizes such costs over 60 months for tax purposes.

At December 31, 1997 and 1996, the Company had no current or deferred tax liability.

The components of the Company's net deferred tax asset and the tax effects of the primary differences giving rise to the Company's deferred tax asset are as follows:

	YEAR ENDED DECEMBER 31,		
	1997	1996	1995
Net operating loss carryforwards	$ 4,900,000	$ 3,100,000	$ 3,000,000
Deferred start-up costs	200,000	380,000	550,000
Deferred research and development costs	6,800,000	5,944,000	5,415,000
Depreciation	315,000	250,000	164,000
Research and development credit	561,000	227,000	110,000
Other	47,000	36,000	171,000
Deferred tax asset	12,823,000	9,937,000	9,410,000
Valuation allowance	(12,823,000)	(9,937,000)	(9,410,000)
Net deferred tax asset	$ --	$ --	$ --

At December 31, 1997, the Company's net operating loss carryovers for federal income tax purposes amount to approximately $12,480,000 and expire through 2012. The Company's ability to use these carryforwards is subject to limitations resulting from an ownership change as defined in Internal Revenue Code Sections 382 and 383.

(b) Pro Forma Financial Information

UNAUDITED PRO FORMA CONDENSED COMBINED
FINANCIAL INFORMATION

The following unaudited pro forma condensed combined balance sheet as of June 30, 1998, the unaudited pro forma condensed combined statements of operations for the year ended December 31, 1997 and the six months ended June 30, 1998 (collectively, the "Unaudited Pro Forma Statements") were prepared to give effect to the Merger accounted for under the purchase method of accounting. The unaudited pro forma balance sheet assumes that the Merger occurred on June 30, 1998. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 1997 and for the six months ended June 30, 1998 assume that the Merger occurred on January 1, 1997 and January 1, 1998, respectively. The Unaudited Pro Forma Statements are based on the historical consolidated financial statements of AVANT (formerly T Cell Sciences, Inc.) and VRI under the assumptions and adjustments set forth in the accompanying notes to the Unaudited Pro Forma Statements. The condensed combined financial information for the fiscal year ended December 31, 1997 has been obtained from the consolidated financial statements of AVANT and VRI. The condensed combined financial information for the six months ended June 30,1998 has been obtained from the unaudited financial statements of AVANT and VRI and includes, in the opinion of AVANT's and VRI's management, all adjustments necessary to present fairly the data for such period. The Unaudited Pro Forma Statements may not be indicative of the results that actually would have occurred if the Merger had been in effect on the dates indicated or which may be obtained in the future.

The pro forma adjustments are based upon available information and upon certain assumptions as described in the notes to the Unaudited Pro Forma Statements that AVANT's management believes are reasonable in the circumstances. The purchase price has been allocated to the acquired assets and liabilities based on a determination from an independent appraisal of their respective values. In accordance with generally accepted accounting principles, the amount allocated to in-process technology will be charged to expense in the quarter in which the Merger is consummated. This adjustment has been excluded from the unaudited pro forma condensed combined statements of operations as it is a nonrecurring item. Although AVANT believes, based on available information, that the fair values and allocation of the purchase price included in the Unaudited Pro Forma Statements are reasonable estimates, final purchase accounting adjustments will be made on the basis of evaluations and estimates made after the Merger is consummated. As a result, final allocation of costs related to the Merger may differ from that presented herein. The Unaudited Pro Forma Statements and accompanying notes should be read in conjunction with the separate consolidated financial statements and notes thereto of AVANT and VRI which have been included or incorporated by reference herein.

AVANT IMMUNOTHERAPEUTICS, INC. AND VIRUS RESEARCH INSTITUTE, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
JUNE 30,1998

	AVANT	VRI	Pro Forma Adjustments	Pro Forma Combined Reflecting the Merger
Assets				
Current Assets:				
Cash and cash equivalents	$5,217,400	$ 5,039,900		$ 10,257,300
Marketable securities	--	10,369,100		10,369,100
Current portion restricted cash	750,000	--		750,000
Prepaid and other current assets	696,600	723,100	(739,300)(a)	680,400
Total current assets	6,664,000	16,132,100	(739,300)	22,056,800
Property and equipment, net	341,900	784,800		1,126,700
Restricted cash	1,195,000	--		1,195,000
Other noncurrent assets	1,635,400	34,500	1,560,000(b)	3,229,900
Total assets	$9,836,300	$ 16,951,400	$820,700	$ 27,608,400
Liabilities And Stockholders' Equity				
Current Liabilities:				
Accounts payable and accrued expenses	$ 940,800	$ 1,978,000	$ 1,528,300(a)	$ 4,447,100
Current portion of lease obligation payable	--	21,900		21,900
Deferred revenue	250,000	--		250,000
Note payable	750,000	--		750,000
Total current liabilities	1,940,800	1,999,900	1,528,300	5,469,000
Long-term note payable	750,000	--		750,000
Stockholders' equity				
Common stock	28,500	9,000	5,000(a)(d)	42,500
Additional paid-in capital	80,069,600	52,025,300	8,671,900(a)(d)	140,766,800
Accumulated deficit	(72,952,600)	(37,082,800)	(9,384,500)(b)(d)(e)	(119,419,900)
Total stockholders' equity	7,145,500	14,951,500	(707,600)	21,389,400
Total liabilities and stockholders' equity	$9,836,300	$ 16,951,400	$820,700	$ 27,608,400

See notes to Consolidated Pro Forma Financial Statements

AVANT IMMUNOTHERAPEUTICS, INC. AND VIRUS RESEARCH INSTITUTE, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS
FOR THE YEAR ENDED DECEMBER 31, 1997

	AVANT	VRI	Pro Forma Adjustments	Pro Forma Combined Reflecting the Merger
Operating Revenue:				
Product development, research, licensing and option revenue	$ 1,147,600	$ 2,505,500		$ 3,653,100
Product sales	44,500	--		44,500
Total operating revenue	1,192,100	2,505,500		3,697,600
Operating Expense:				
Research and development	5,256,900	7,906,900	1,192,000(c)	14,355,800
General and administrative	3,375,500	2,395,900		5,771,400
Other operating expense	118,400	--		118,400
Total operating expense	8,750,800	10,302,800	1,192,000	20,245,600
Operating loss	(7,558,700)	(7,797,300)	(1,192,000)	(16,548,000)
Other non-operating income (expense), net	(5,549,300)	1,232,900		(4,316,400)
Net loss	$(13,108,000)	$ (6,564,400)	$(1,192,000)	$(20,864,400)
Basic and diluted net loss per common share	$ (0.52)	$ (0.74)		$ (0.53)
Shares used in computing basic and diluted net loss per common share	25,139,900	8,897,800		39,176,400(f)

See notes to Consolidated Pro Forma Financial Statements

AVANT IMMUNOTHERAPEUTICS, INC. AND VIRUS RESEARCH INSTITUTE, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS
FOR THE SIX MONTHS ENDED JUNE 30,1998

	AVANT	VRI	Pro Forma Adjustments	Pro Forma Combined Reflecting the Merger
Operating Revenue:				
Product development, research, licensing and option revenue	$ 635,900	$ 51,100		$ 687,000
Product sales	35,000	--		35,000
Total operating revenue	670,900	51,100		722,000
Operating Expense:				
Research and development	2,259,800	3,792,400	596,000(c)	6,648,200
General and administrative	1,482,800	1,289,700		2,772,500
Other operating expense	39,900	--		39,900
Total operating expense	3,782,500	5,082,100	596,000	9,460,600
Operating loss	(3,111,600)	(5,031,000)	(596,000)	(8,738,600)
Other non-operating income, net	395,600	477,700		873,300
Net loss	$ (2,716,000)	$ (4,553,300)	($596,000)	$ (7,865,300)
Basic and diluted net loss per common share	$ (0.10)	$ (0.51)		$ (0.19)
Shares used in computing basic and diluted net loss per common share	27,638,900	8,984,000		41,675,400(f)

See notes to Consolidated Pro Forma Financial Statements

AVANT IMMUNOTHERAPEUTICS, INC. AND VIRUS RESEARCH INSTITUTE, INC.
NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

1. Basis of Presentation

The pro forma information presented is theoretical in nature and not necessarily indicative of the future consolidated results of operations of the combined companies or the consolidated results of operations which would have resulted had the Merger taken place during the periods presented. The Unaudited Pro Forma Statements reflect the effects of the Merger. The unaudited pro forma condensed combined balance sheet assumes that the Merger and related events occurred as of June 30, 1998. The unaudited pro forma condensed combined statements of operation for the year ended December 31, 1997 and for the six months ended June 30, 1998 assume that the Merger and related events occurred as of January 1, 1997 and January 1, 1998, respectively.

2. Pro Forma Condensed Combined Financial Statement Adjustments

(a) The purchase price for the Merger was determined as follows:

AVANT common stock	$ 51,686,900
AVANT warrants	4,980,700
Conversion of VRI Stock Options and VRI Warrants	4,043,600
Direct acquisition costs	2,267,600
Total estimated purchase price	$ 62,978,800

(b) The actual allocation of the purchase price will be based on the estimated fair values of the net assets of VRI at the consummation of the Merger. For the purposes of the pro forma financial statements, such allocation has been estimated as follows:

Net assets of VRI at June 30,1998	$ 14,951,500
In-process technology	46,467,300
Assembled workforce	460,000
Product base and collaborative relationships	1,100,000
Total estimated purchase price	$ 62,978,800

(c) Amortization of the product base and collaborative relationships and the assembled workforce will be over the estimated useful life of one year and five years, respectively.

(d) Elimination of VRI stockholders' equity amounts.

(e) Management estimates that approximately $46.5 million of the purchase price represents purchased in-process technology that has not yet reached technological feasibility and has no alternative future use. This amount will be expensed as a non-recurring charge upon consummation of the Merger. This amount has been reflected as a reduction to stockholders' equity and has not been included in the pro forma condensed combined statements of operations due to its non-recurring nature. A valuation of the intangible assets acquired was conducted by an independent third party.

The value assigned to purchased in-process technology was determined by identifying research projects in areas for which technological feasibility has not been established. Due to the early stage nature of VRI's operations and research and development, such research projects represent substantially all of VRI's activities. The value was determined by estimating the costs to develop the purchased in-process technology into commercially viable products; estimating the resulting net cash flows from such projects; and discounting the net cash flows back the their present value.

The efforts to develop the purchased in-process technology into commercially viable products generally include the identification of appropriate collaborative partners and financing, the completion of both pre-clinical and clinical trials as well as the obtaining of regulatory approval. Additional discussion of the nature of commercial product development is included under "Risk Factors."

(f) The shares used in computing the unaudited pro forma combined net loss per share for the year ended December 31, 1997 and six months ended June 30,1998 are based upon the historical weighted average common shares outstanding adjusted to reflect the issuance, as of January 1, 1997 and January 1, 1998, respectively, of approximately 14.0 million shares of AVANT common stock as described in (a) above.

(c) Exhibits

Exhibit No.	Description
2.1	The Agreement and Plan of Merger, dated as of May 12, 1998, by and among the Registrant, TC Merger Corp. and AVANT is incorporated by reference to the Registration Statement on Form S-4 filed with the Securities and Exchange Commission on July 16, 1998 (Reg. No. 333-59215).*
3.1	Form of Second Certificate of Amendment of Third Restated Certificate of Incorporation of T Cell Sciences, Inc.**

* Previously filed.

** Incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-4 (File No. 333-59215) filed with the Commission on July 16, 1998.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: September 29, 1998

AVANT Immunotherapeutics, Inc.

By: /s/ Norman W. Gorin

Norman W. Gorin
Chief Financial Officer and Secretary