SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-K

- [X] Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 1997 or
- [] Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Commission File Number: 0-19756

PROTEIN DESIGN LABS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 94-3023969 (I.R.S. Employer Identification No.)

2375 Garcia Avenue Mountain View, CA 94043 (Address of principal executive offices) Telephone Number (650) 903-3700

Securities registered pursuant to Section 12(b) of the Act:

Title of each class
----None

Name of each exchange on which registered

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, Par value \$.01
(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No []

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. []

The aggregate market value of the voting stock held by non-affiliates of the registrant, based upon the closing sale price of the Common Stock on December 31, 1997, as reported on the NASDAQ National Market System, was approximately \$733,919,080.

As of December 31, 1997, registrant had outstanding 18,347,977 shares of Common Stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the registrant's 1998 Annual Meeting of Stockholders, to be filed with the Commission on or prior to April 30, 1998, are incorporated by reference into Part III of this report.

PART I

This Annual Report for Protein Design Labs, Inc. ("PDL" or the "Company"), in addition to historical information, contains forward-looking statements which involve risks and uncertainties. The Company's actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such a difference include, but are not limited to those discussed in "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" as well as those discussed elsewhere in this document. Actual events or results may differ materially from those discussed in this Annual Report.

ITEM 1. BUSINESS

OVERVIEW

PDL is a leader in the development of humanized and human monoclonal antibodies for the prevention and treatment of a variety of disease conditions, including autoimmune diseases, inflammatory conditions, cancers and viral infections. The Company uses proprietary computer software and other technologies to develop its SMART[TM] humanized antibodies for potential use as effective pharmaceuticals without the limitations of traditional mouse-derived (murine) antibodies. PDL believes that its technologies are broadly applicable to a variety of diseases, as demonstrated by the Company's diverse product

development pipeline and its collaborative arrangements with numerous pharmaceutical companies. The Company and its collaborative partners currently have multiple product candidates in clinical development and numerous additional product candidates in preclinical studies. The Company's most advanced product, Zenapax[R], has been approved for marketing in the United States ("U.S.") and Switzerland for the prophylaxis of acute organ rejection in patients receiving renal transplantations. This product is exclusively licensed to Hoffmann-La Roche Inc. and its affiliates ("Roche"). PDL has received U.S. and European patents that the Company believes cover most humanized antibodies and that may lead to additional corporate partnering, patent licensing and other revenue opportunities.

Antibodies have long had promise as therapeutic compounds to treat a variety of disease conditions. Traditional murine antibodies, however, have significant drawbacks which in most cases prevent them from becoming effective therapeutics. The most important of these is the human anti-mouse antibody ("HAMA") response, in which the murine antibody is recognized by the body's immune system as foreign and is rapidly neutralized and rendered ineffective. PDL's antibodies are designed to avoid these drawbacks, including the HAMA response. PDL's SMART antibodies are predominantly human antibodies that incorporate the structural information from the binding region of promising murine antibodies. By applying its proprietary SMART antibody technology, the Company is able to create recombinant antibodies with molecular structures that are approximately 90% human and 10% murine. The Company also has technologies to produce fully human antibodies to treat additional diseases using antibody therapy.

PDL's business strategy is to leverage its technologies, research expertise and intellectual property in the field of antibodies to become a profitable, research-based biotechnology company that manufactures and, in North America, markets its own products. Key aspects of PDL's strategy are to: (i) expand the Company's product portfolio to provide multiple product candidates to treat a variety of diseases and conditions; (ii) establish collaborative relationships with pharmaceutical companies to reduce development costs and risks and to enhance commercial opportunities; (iii) leverage its patent position by providing humanization services for promising murine antibodies of other parties and/or licensing certain rights in exchange for near-term revenues and future royalty opportunities; and (iv) retain North American marketing rights to certain products to provide for greater revenue opportunities.

The Company actively seeks partnerships with pharmaceutical, chemical and biotechnology companies. The breadth of the Company's antibody technology and its patent position are key assets in attracting such companies to enter into various types of collaborative relationships. In one type of collaborative arrangement, the Company licenses certain marketing rights to one or more potential products developed by PDL in return for a licensing and signing fee, research funding and milestone payments, and royalties on potential product sales. In another type of arrangement, PDL uses its proprietary technology to develop a SMART antibody based on a promising murine antibody developed by a corporate partner. In such cases, PDL typically receives a licensing and signing fee and other payments, royalties on potential sales and, in some cases, an option to co-promote in North America.

PRODUCTS AND PRODUCT CANDIDATES

The Company believes it is a leader in the development of antibody-based therapeutics and has one of the broadest product pipelines in this area. One antibody product created by the Company has been approved for marketing by the U.S. Food and Drug Administration ("FDA") and the Swiss regulatory authorities, and the Company has several other product candidates in clinical development and a number of product candidates in preclinical development for the treatment of a variety of disease conditions, including autoimmune diseases, inflammatory conditions, cancers and viral infections.

Clinical Product Candidates

Table One summarizes the potential therapeutic indications, development status and commercial rights for PDL product candidates that have entered clinical trials. The development and commercialization of the Company's clinical

Table One

PRODUCT	POTENTIAL THERAPEUTIC INDICATIONS	DEVELOPMENT STATUS (1)	COMMERCIAL RIGHTS(2)
Zenapax (daclizumab)	Organ transplant rejection Tropical spastic	Approved for marketing (kidney)	Roche
	paraparesis	Phase I/II	
	Uveitis	Phase I/II	
	Psoriasis	Phase I/II	

Certain blood cancers Phase II SMART M195 Acute myelogenous Phase II/III PDL and Kanebo leukemia Antibody Acute promyelocytic Phase II leukemia OST 577 (Human Treatment of chronic Phase II PDL and Novartis Anti-Hepatitis B hepatitis B Antibody, Ostavir (TM)) PROTOVIR[TM](Human Cytomegalovirus Phase II PDL and Novartis Anti-Cytomegalovirus infections in bone Antibody) marrow transplantation SMART Anti-CD3 Organ transplantation Phase I PDL Antibody rejection and certain

(1) The development status identifies the most advanced development status achieved for at least one of the listed potential therapeutic indications but not all potential therapeutic indications have achieved the development status specified. Unless otherwise noted, development status refers to the stage of U.S. development.

autoimmune diseases

(2) Marketing rights for each of these products differ. See "--Collaborative and Licensing Arrangements."

ZENAPAX (daclizumab). Zenapax is a humanized antibody, created by PDL and licensed exclusively to Roche, which binds to the IL-2 receptor on T cells. IL-2 is a lymphokine which stimulates T cells to divide and participate in an immune response. By blocking the binding of IL-2 to its receptor, Zenapax inhibits the proliferation of activated T cells and can suppress the immune response. As described below, in December 1997, the FDA approved the marketing of Zenapax for the prophylaxis of acute organ rejection in patients receiving renal (kidney) transplantations. Zenapax may also be useful for the treatment of certain autoimmune diseases, and is currently being tested clinically for several such indications. Zenapax is more specific and less toxic than other immunosuppressive drugs such as cyclosporine or Orthoclone OKT[R]3 ("OKT3"), because Zenapax suppresses only activated T cells involved in an immune response rather than all T cells and possibly other unrelated cells. See "Risk Factors -- Dependence on Roche with Respect to Zenapax."

Organ Transplantation. In September 1996, the Company's corporate partner, Roche, announced results from two multinational Phase III studies of Zenapax for the prevention of acute rejection episodes in a total of 535 cadaveric kidney transplantation recipients. As set forth in the following table, analysis of the data by Roche indicated that, when administered with a standard immunosuppressive regimen, Zenapax is effective in reducing the incidence of acute rejection episodes that occur within six months of transplantation, the primary endpoint of these two trials. In the double therapy trial, in which all patients received an immunosuppressive regimen of cyclosporine and prednisone, acute rejection episodes were reduced by 40% in patients treated with Zenapax. In the triple therapy trial, in which all patients received cyclosporine, prednisone and azathioprine, the incidence of acute rejection episodes was reduced by 37% in patients treated with Zenapax. The results are presented in Table Two.

Table Two

Trial	Without Zenapax	Incidence of With Zenapax	Kidney Rejection Episodes Reduction with Zenapax	p Value
Double Therapy .		28%	40%	0.001
Triple Therapy .		22%	37%	0.03

Roche also noted that secondary endpoints of reduction in the total number of rejection episodes per patient and increase in the time to first rejection episode were achieved with Zenapax in both clinical trials. In addition, in pooled data from the studies, there were a total of 31 kidneys lost and 10 deaths in the groups not treated with Zenapax, but only 16 kidneys lost and 1 death in the Zenapax-treated groups. The addition of Zenapax to the standard immunosuppressive regimen did not result in an increase in drug-related serious adverse events.

Based on these trials, Roche filed a Biologics License Application ("BLA") for Zenapax with the FDA in June 1997, and has also filed for regulatory approval to market Zenapax in Canada, Europe and other countries. In October 1997, the Biological Response Modifiers Advisory Committee unanimously recommended to the FDA that marketing clearance for Zenapax be granted, and the FDA granted such approval in December 1997. Zenapax is the first humanized antibody to be approved for marketing by the FDA. In March 1998, Zenapax was also approved for marketing in Switzerland. Roche's regulatory submissions are currently under review in Canada and other countries.

In addition to the studies described above, a randomized, double-

blind study has been conducted with 75 evaluable patients to assess Zenapax in combination with CellCept[R], plus cyclosporine and steroids, in kidney transplantation patients. CellCept, marketed by Roche, is also used to prevent kidney transplantation rejection. In this study, 12% of Zenapax-treated patients had an acute rejection episode, compared to 20% of patients not receiving Zenapax, and the combination of CellCept and Zenapax was well-tolerated. Preliminary results of a single-arm Phase II study of Zenapax in liver transplantation have been published. In this study, only one in 28 patients (3.6% of the patients studied) treated with Zenapax together with cyclosporine and corticosteroids had a rejection episode within three months of the liver transplantation.

A preliminary study is also being conducted to determine whether the combination of Zenapax and CellCept is sufficient to allow the elimination of cyclosporine, a widely used but more toxic drug, from the standard immunosuppressive regimen for kidney transplantation patients. Preliminary results in this single-arm, multi-center study of 99 patients from 23 patients in a single center participating in this study were presented in February 1998. These preliminary results showed 6 rejection episodes among the 23 reported patients, for a 26% incidence rate. Patients have been followed for two to eight months after kidney transplantation, and patient followup is continuing. The study is continuing and final results from all patients may differ significantly from these preliminary results from a single center. A study of Zenapax in pediatric kidney transplantation is also being conducted.

According to industry sources, approximately 20,000 solid organs are transplanted into patients in the U.S. each year, with kidney transplantations accounting for about 12,000 of the total. A comparable number of kidney transplantations are performed in Europe. The majority of kidney transplantation patients receive cadaveric kidneys.

Autoimmune Diseases. Because of the ability of Zenapax to inhibit the proliferation of T cells, the Company believes that Zenapax may have potential for the treatment of certain autoimmune diseases. Investigators at the National Institutes of Health ("NIH") are evaluating Zenapax in a preliminary clinical trial for uveitis, an autoimmune disease of the eye and in patients with tropical spastic paraparesis, a rare autoimmune disease of the nerves considered by these investigators to be a model for multiple sclerosis. In addition, a proof-of-concept clinical trial of Zenapax is in progress for psoriasis.

Cancer. The Company believes that Zenapax may also have potential for the treatment of certain blood cancers, because the IL-2 receptor is present on these types of cancer cells. The murine antibody from which Zenapax was originally created has been tested at NIH in patients with adult T-cell leukemia, and several of the patients experienced remissions, especially when the antibody was linked to a radioisotope. A pilot Phase I clinical trial of Zenapax for the treatment of certain cancers was completed in 1993 at the National Cancer Institute ("NCI") of NIH, and a Phase II trial of a radiolabeled form of Zenapax for certain blood cancers is in progress at NCI.

There can be no assurance that Roche will successfully market Zenapax for use in preventing kidney transplantation rejections in a timely manner, or that Roche will pursue or continue clinical trials in autoimmune diseases or other indications. See "Risk Factors--Dependence on Roche with Respect to Zenapax."

SMART M195 ANTIBODY. The SMART M195 Antibody is a humanized antibody that binds to the cancer cells of most patients with myeloid leukemia. Myeloid leukemia, the major form of leukemia in adults, is classified into two types -- acute myelogenous leukemia ("AML") and chronic myelogenous leukemia ("CML"). There are at least 11,000 new cases of myeloid leukemia in the U.S. each year, of which more than half are AML. Currently, the survival rate of myeloid leukemia patients is very low, despite aggressive chemotherapy and multiple, expensive hospitalizations.

PDL has adopted strategies designed to achieve improved efficacy of antibodies in certain cancers. First, PDL's anti-cancer antibodies are humanized, which allows for longer term treatment by minimizing the HAMA response and potentially makes the antibodies more effective in killing cancer cells. Second, the Company is initially focusing on treatment of blood cancers, such as myeloid leukemia, which may be more susceptible to antibody therapy than solid tumors because the cancer cells are more readily accessible. Third, PDL generally plans to conduct trials of its antibodies in combination with, or following, other chemotherapeutic agents. Thus, by applying its antibodies in a "minimal residual disease" setting, the Company hopes SMART antibodies will eliminate or suppress the cancer cells remaining after chemotherapy, leading to longer disease-free survival.

PDL is conducting a randomized Phase II/III trial of the SMART M195 Antibody for AML, which was initiated in June 1994. Patients in the trial first receive a specific regimen of chemotherapy. Those patients entering clinical remission are randomized either to observation or to receive 20 doses of the SMART M195 Antibody given over an eight month period. The primary clinical endpoint is the median duration of disease-free survival, which in the absence of SMART M195 Antibody therapy has historically been about eight months. The study is planned to evaluate 144 patients in remission, but a substantially larger number will need to receive chemotherapy in order to reach that number of patients in remission. The study is currently expected to require several additional

years to complete. The Company has added other U.S. medical centers and taken other actions to accelerate patient accrual in the study. However, patient accrual has not increased to the level desired by the Company. The Company intends to review the status of the clinical trial in the second half of 1998 and there can be no assurance that the trial will be continued or, if continued, that patient accrual can be completed in a timely fashion, if at all. See "Risk Factors -- Limited Experience with Clinical Trials; Risk of Delay."

In 1997, the Company initiated a Phase II trial of the SMART M195 Antibody in patients with relapsed AML. The Company plans to enroll 40 patients in this trial. The goal of the study is to determine whether high doses of the SMART M195 Antibody, administered as a single agent, can induce any complete remissions in this patient population.

The SMART M195 Antibody is also being studied in a Phase II trial under a physician-sponsored Investigational New Drug Application ("IND") at the Memorial Sloan-Kettering Cancer Center ("Sloan-Kettering"), in patients with acute promyelocytic leukemia ("APL"), one of several types of AML. This trial is designed to examine whether the SMART M195 Antibody can improve elimination of minimal residual leukemia that remains after treatment with retinoic acid, a drug approved to treat APL. The effectiveness is measured by elimination of cells having the characteristic genetic mutation found in APL to below detectable levels ("molecular remission"). Normally, up to three rounds of expensive and toxic chemotherapy are required to bring newly diagnosed APL patients into molecular remission after therapy with retinioc acid. Of the patients in the APL study, thirteen were evaluable for molecular remission and fifteen were evaluable for clinical remission. All thirteen of the evaluable patients entered complete molecular remission. All fifteen of the evaluable patients entered complete clinical remission after treatment with retinoic acid, the SMART M195 Antibody and one round of chemotherapy. All evaluable patients entering complete clinical and/or complete molecular remission remain in complete remission with a median duration of more than 20 months. More patients and longer-term follow up are necessary to evaluate the significance of the observed remissions. While these results suggest that the SMART M195 Antibody may be biologically active in APL, the Company currently has no plans to conduct pivotal clinical trials in this subpopulation of AML patients.

A Phase I clinical trial of the SMART M195 Antibody linked to 213-Bismuth, an alpha particle-emitting isotope, was initiated in 1996 and completed in 1998 under a physician-sponsored IND at Sloan-Kettering in advanced myeloid leukemia patients. The Company supported this trial to obtain preliminary evidence of the safety and potential efficacy of the SMART M195 Antibody-213-Bismuth used as a single agent to induce remissions of advanced myeloid leukemia. Generators to produce the 213-Bismuth isotope were supplied by the European Commission Directorate-General JRC Institute for Transuranium Elements in conjunction with PharmActinium, Inc. and associated companies. The Company believes that this study was the first clinical trial of an antibody combined with an alpha-emitting isotope. In previous clinical trials of radiolabeled antibodies, the antibodies have been linked to radioisotopes that emit beta or gamma particles. Alpha particles release more energy over a shorter path than beta or gamma particles and, therefore, may be more effective in destroying the targeted cancer cells without damaging nearby normal cells.

Exclusive development and marketing rights to the SMART M195 Antibody in Asia have been licensed to PDL's collaborative partner, Kanebo.

OST 577 (HUMAN ANTI-HEPATITIS B ANTIBODY, OSTAVIR). OST 577 is a human antibody, developed using the trioma technology and licensed by PDL from Novartis Pharmaceuticals Corporation ("Novartis") (formerly known as Sandoz Pharmaceuticals Corporation). OST 577 binds to the major protein present on hepatitis B virus ("HBV"), the hepatitis B surface antigen. Infection with HBV is a common cause of liver disease. In most cases of infection, the patient's immune response is sufficient to ultimately eliminate the virus. However, an estimated 2% to 10% of HBVinfected patients become chronic carriers of the virus, and about onefourth of these patients develop chronic hepatitis B ("CHB"), which is characterized by progressive liver damage and often cirrhosis and liver cancer. In the U.S. there are an estimated one million chronic carriers of HBV, with 300,000 new HBV infections and more than 10,000 patients hospitalized due to HBV infections each year. While interferon-alpha is approved in the U.S. for treatment of CHB, only 30-40% of treated patients respond to this treatment, which must be given over four months and has significant side effects.

In patients receiving liver transplantations due to end-stage CHB, the virus remaining after the transplantation usually will rapidly infect and in many cases destroy the new liver. An initial Phase I/II clinical trial of OST 577 enrolled five patients receiving liver transplantations due to end-stage CHB. In the clinical trial, each patient received doses of OST 577 for up to 18 months after transplantation. Three of the five treated patients showed no evidence of viral recurrence more than one year after transplantation. The other two patients developed recurrence but remained asymptomatic for four years, after which one of them developed symptoms.

A Phase I/II clinical trial of OST 577 has also been completed in 12 patients with CHB. OST 577 was well tolerated by patients treated at the two lower dose levels, but some reversible side effects were seen at the highest level. Key markers for HBV infection decreased at least temporarily by 50% or more in many of the patients during treatment. Specifically, such reductions were seen in 5 of 10 patients for liver enzyme levels; in 10 of 12 for hepatitis B surface antigen; and in 5 of 9 for viral DNA levels. Results obtained in early clinical trials may not be predictive of results in larger, later-stage trials. See "Risk Factors -- Uncertainty of Clinical Trial Results."

In 1996, PDL's former development partner for this antibody, Boehringer Mannheim, initiated a multinational, controlled Phase II trial of OST 577 to evaluate the antibody for use both as a single agent and in combination with interferon-alpha. In December 1997, after 16 of a planned 200 patients had been enrolled in this study, Boehringer Mannheim concluded, based on its analysis of the data, that when used as defined in the study, treatment with OST 577 gave rise, in certain patients, to self-resolving side effects induced by immune complex formation such as proteinuria and fever. Based on its analysis, Boehringer Mannheim terminated the study and returned all rights to this product to PDL. PDL is currently planning to conduct clinical trials of OST 577 in combination with a nucleoside analog, which may reduce circulating levels of HBV and therefore reduce or eliminate the formation of immune complexes and associated side effects. However, there can be no assurance that supplies of a nucleoside analog will be available for such studies, that the studies will be initiated or completed in a timely manner, if at all, that side effects will be reduced to an acceptable level in this setting, or that OST 577 will be found safe and effective in such trials. See "Risk Factors --Uncertainty of Clinical Trial Results." Novartis has certain rights to co-promote or co-market this antibody in North America or to receive royalties on product sales, if any. See "-- Collaborative and Licensing Arrangements -- Novartis.'

PROTOVIR (HUMAN ANTI-CMV ANTIBODY). PROTOVIR is a human antibody derived using the trioma technology and licensed by PDL from Novartis. PROTOVIR binds to all tested strains of human cytomegalovirus ("CMV"). CMV is an important cause of morbidity and death in patients with suppressed immune systems, such as AIDS patients and recipients of solid organ and bone marrow transplantations ("BMT").

Bone Marrow Transplantation. The Company has completed a randomized, placebo-controlled, double-blinded Phase II trial to assess the potential safety and efficacy of PROTOVIR for the prevention of CMV infections in allogeneic bone marrow transplantation patients, which compared two dose levels of PROTOVIR against placebo in 179 evaluable patients. Preliminary analysis of the data showed that patients in the PROTOVIR treatment group who did not have a CMV infection prior to transplantation and received grafts from CMV positive donors (a prospectively defined subgroup) demonstrated a statistically significant lower incidence of the primary endpoint (CMV infection, death or disease relapse) relative to the control group at 98 days post-transplantation. However, there was no significant difference in this endpoint for all patients in the study. The Company is currently considering whether the market size for the CMV negative recipient/CMV positive donor subgroup is sufficient to justify further clinical trials of PROTOVIR.

CMV Retinitis. The potential safety and efficacy of PROTOVIR was evaluated in a Phase II/III clinical trial conducted by the National Eye Institute Studies of Ocular Complications of AIDS ("NEI SOCA") for the treatment of CMV retinitis, a common ophthalmic condition in AIDS patients that often leads to blindness. In August 1996, NEI SOCA, acting on the recommendation of an independent data and safety monitoring board, halted the study based on lack of evidence of efficacy. Concurrently with the NEI SOCA trial, PROTOVIR also was being evaluated in a Phase II clinical trial being conducted by the National Institute of Allergy and Infectious Diseases AIDS Clinical Trial Group ("NIAID ACTG") for treatment of CMV retinitis. Based on the NEI SOCA findings and actions, the NIAID ACTG Phase II trial was also terminated.

There can be no assurance that the Company will continue further development of PROTOVIR, whether by seeking to out-license or terminating further clinical trials of this antibody. Exclusive rights for the therapeutic application of PROTOVIR outside of North America and Asia had been licensed to Boehringer Mannheim, which returned all rights to PDL in December 1997. Novartis, from whom PDL licensed the antibody, has certain rights to co-promote or co-market this antibody in North America and Asia or to receive royalties on product sales. See "--Collaborative and Licensing Arrangements."

SMART Anti-CD3 Antibody. This antibody binds to the CD3 antigen, a key receptor for stimulation of T cells. A competitive murine antibody, the OKT3 antibody, binds to the same target antigen. OKT3 is being marketed for the treatment of acute organ transplantation rejection. While highly effective, OKT3 is hampered by the often serious toxicity associated with its use, as well as by the HAMA response. In addition to being humanized, PDL's SMART Anti-CD3 Antibody has been engineered to reduce interactions with the immune system that may contribute to the toxicity of OKT3. The Company has retained worldwide rights to the SMART Anti-CD3 antibody and believes that potential indications for this antibody may include treatment of organ transplantation rejection and certain severe autoimmune diseases.

The Company is currently conducting a Phase I, open-label dose escalation trial of the SMART Anti-CD3 Antibody. The purpose of the study is to determine preliminary tolerability, pharmacokinetics and

bioactivity of the drug candidate. To date, enrollment and treatment have been completed at the first three dose levels, and are in progress at the fourth dose level. At the highest dose levels tested thus far, there was a profound, temporary depletion of the patients' T cells (an indication of bioactivity) with only mild to moderate side effects. The most frequent side effect observed was transient headache, which was readily treated with acetaminophen or codeine. A multiple-dose study of the antibody is currently being planned. While the results obtained in the ongoing Phase I trial have been encouraging thus far, there can be no assurance that the antibody will be found to be safe and effective in the current study at higher dose levels or in future studies. See "Risk Factors -- Uncertainty of Clinical Trial Results.

Yamanouchi Humanized Antibody. Yamanouchi Pharmaceutical Co., Ltd. ("Yamanouchi") has in progress a Phase I clinical trial in Europe of an antibody humanized by the Company, a SMART anti-gpIIb/IIIa monoclonal antibody fragment, for the potential treatment of certain cardiovascular disorders.

PRECLINICAL PRODUCT CANDIDATES

Table Three summarizes the potential therapeutic indications and commercial rights for certain of PDL's preclinical product candidates. "Preclinical" development includes in vitro testing, efficacy and toxicology testing in animals, process development and manufacturing scale-up prior to initiation of clinical trials. The Company has other compounds in development in addition to those listed below and is conducting research in other areas. The development and commercialization of the Company's preclinical product candidates are subject to numerous risks and uncertainties. See "Risk Factors."

Table Three

PRODUCT	POTENTIAL THERAPEUTIC INDICATIONS	COMMERCIAL RIGHTS(1)
Autoimmune and Inflammatory conditions		
SMART Anti-L-Selectin Antibody	Trauma	PDL and Roche (Boehringer Mannheim)
SMART Anti-E/P- Selectin Antibody	Stroke, certain autoimmune diseases (e.g. psoriasis), asthma	PDL

SMART Anti-Gamma Interferon Antibody Certain autoimmune diseases (e.g. Crohn's

PDL

disease)

SMARTABL 364

Cancer

Certain epithelial cell

PDI and Novartis

cancers

Viral Infections

Human Anti-Varicella Zoster Antibody

Shingles (herpes zoster) PDL and Novartis

Human Anti-Herpes Antibody

Neonatal and genital herpes

PDL and Novartis

(1) The development and marketing rights for each of these products differ. See "-- Collaborative and Licensing Arrangements.

AUTOIMMUNE DISEASE AND INFLAMMATION. Discoveries in immunology have made possible a new therapeutic approach to inflammation resulting from causes such as injury or autoimmune disease. Certain proteins called adhesion molecules, located on the surface of various types of cells, play a key role in inflammation by directing the movement of white blood cells from the bloodstream into the sites of tissue inflammation. In laboratory experiments conducted by PDL and others, antibodies have been shown to block the function of these adhesion molecules. PDL has developed several SMART antibodies against adhesion molecules.

PDL's SMART Anti-L-Selectin Antibody binds to L-selectin, an adhesion molecule on the surface of white blood cells. The Company believes that potential indications for this antibody may include trauma, ARDS, reperfusion injury (e.g., due to myocardial infarction) and possibly certain autoimmune diseases. In studies conducted by independent investigators, treatment with the SMART Anti-L-Selectin Antibody resulted in a statistically significant improvement in survival in a primate model that simulates severe trauma. Boehringer Mannheim has licensed rights to this antibody from PDL outside of North America and

PDL's SMART Anti-E/P-Selectin Antibody binds to two different adhesion molecules, E- and P-selectin, that occur on the surface of the cells on the inner lining of blood vessels. The Company believes that potential indications for such an antibody may include stroke and certain autoimmune diseases including psoriasis and asthma.

PDL's SMART Anti-Gamma-Interferon Antibody binds to and neutralizes gamma interferon, a lymphokine that stimulates several types of white blood cells. The Company believes that potential indications for this antibody may include inflammatory bowel disease, type I diabetes mellitus, multiple sclerosis, and other autoimmune diseases.

CANCERS. PDL's SMART ABL 364 Antibody has potential for the treatment of many solid tumors, including colon, lung and breast cancer. Initial laboratory tests have shown that the SMART ABL 364 Antibody, in conjunction with other components of the immune system, can kill cancer cells

VIRAL INFECTIONS. Varicella zoster virus ("VZV") is the virus responsible for causing chickenpox and shingles (herpes zoster). Shingles, a painful blistering condition of the skin, results from reactivation of the latent VZV that initially infected the patient years earlier. In the U.S., 10-20% of the population will develop shingles, with the incidence and severity of the condition increasing with age. A significant percentage of patients with shingles experience postherpetic neuralgia, a very painful nerve condition which may last from weeks to years in some patients. Current anti-viral therapies are moderately effective in treating shingles, but have little or no effect on post-herpetic neuralgia. PDL's Human Anti-Varicella Zoster Antibody effectively neutralizes all tested strains of VZV in in vitro studies.

Herpes simplex virus ("HSV") causes a painful recurring genital infection. The virus also causes neonatal herpes, an uncommon but very serious disease of newborn infants. PDL's Human Anti-Herpes Antibody binds to and effectively neutralizes all strains of HSV tested, and is well-tolerated and non-immunogenic in primates. In animal studies sponsored by the National Institute of Allergy and Infectious Disease Collaborative Antiviral Studies Group ("NIAID-CASG"), the antibody effectively protected mice from a lethal herpes infection when administered up to 72 hours after exposure to the virus. The Company believes that competition from antiviral drugs and the present reimbursement environment may limit the market opportunities for the Human Anti-Herpes Antibody in treating genital herpes. The Company has signed a Collaborative Research and Development Agreement with NIAID-CASG to provide the antibody primarily for clinical studies in neonatal herpes, but there can be no assurance NIAID-CASG will initiate or complete such studies in a timely manner, if at all.

PDL TECHNOLOGIES

BACKGROUND ON ANTIBODIES. Antibodies are protective proteins released by the immune system's B cells, a type of white blood cell, in response to the presence of a foreign substance in the body, such as a virus. B cells produce millions of different kinds of antibodies, which have slightly different shapes that enable them to bind to and thereby inactivate different targets. Antibodies of identical molecular structure that bind to a specific target are called monoclonal antibodies. Typically, mice have been used to produce monoclonal antibodies to a wide variety of molecular targets, including targets to which the human body does not normally produce antibodies. In particular, many murine antibodies have been developed as potential therapeutics to neutralize viruses, destroy cancer cells or inhibit immune function.

Although murine monoclonal antibodies are relatively easy to generate, they have significant drawbacks as therapeutics. Murine antibodies have a relatively short half-life in human patients, requiring them to be administered frequently. Moreover, murine antibodies are not adapted to work effectively with the human immune system and therefore often have limited ability to destroy the target, such as cancer cells. Most importantly, when injected into humans, a murine antibody is usually recognized by the body's immune system as foreign. The immune system therefore responds with a HAMA response, which rapidly neutralizes the murine antibody and renders it ineffective for further therapy. These problems have largely prevented murine antibodies from fulfilling their promise as therapeutics.

More recently, improved forms of antibodies, such as humanized and chimeric antibodies, have been developed using recombinant DNA technology. These new antibodies can minimize or avoid many of the problems associated with murine antibodies and have led to a resurgence of interest in antibody therapeutics by the pharmaceutical and biotechnology industries. As a result of these advances, many monoclonal antibodies are now progressing into clinical trials. In a list of biotechnology medicines under clinical development in the U.S. published in 1996 by the Pharmaceutical Research and Manufacturers of America, antibodies comprised the single largest category, representing 78 of 284 products listed. In particular, PDL is aware of more than twenty humanized antibodies in clinical trials, including several antibodies addressing large markets that are being developed by major pharmaceutical companies. Three humanized or chimeric antibodies have already been approved for marketing by the FDA.

PDL'S SMART ANTIBODY TECHNOLOGY. PDL believes that its patented SMART antibody technology has positioned the Company as a leader in the development of therapeutic antibodies that overcome the problems

associated with murine antibodies. PDL's SMART antibodies are human-like antibodies designed using structural information from promising murine antibodies to capture the benefits of such antibodies while overcoming many of their limitations in treating humans. Clinical trials and preclinical studies have shown that PDL's SMART antibodies generally avoid a HAMA response and have a longer half-life than murine antibodies.

Every antibody contains two regions, a variable domain that binds to the target antigen and a constant domain that interacts with other portions of the immune system. The variable domain is composed of the complementarity determining regions ("CDRs") that directly bind to the target antigen and the framework region that holds the CDRs in position and helps maintain their required shape. Researchers have used genetic engineering to construct "humanized" antibodies that consist of the CDRs from a murine antibody with the framework region and constant domain from a human antibody. However, when the CDRs from the murine antibody are combined with the framework of the human antibody, the human framework often distorts the shape of the CDRs so they no longer bind well to the target. Therefore, it is usually necessary to substitute one or more amino acids from the murine antibody into the framework of the humanized antibody for it to maintain the binding ability of the murine antibody.

A SMART antibody is a humanized antibody designed by using PDL's proprietary computer technology to guide the choice of substitutions of amino acids from the murine antibody into the human antibody framework, based on structural information derived from the murine antibody. The construction of a SMART antibody starts with the identification of a murine antibody that has demonstrated favorable results in laboratory, animal or human studies. A model of the murine antibody is generated using proprietary computer modeling software that predicts the shapes of antibodies and eliminates the need for more timeconsuming laboratory techniques. The resulting model is carefully analyzed to identify the few key amino acids in the framework most responsible for maintaining the shape of the CDRs. Software developed at PDL as well as the experience of the Company's computational chemists is important in this analysis. These few key murine amino acids are substituted into the human framework of the SMART antibody along with the murine CDRs in order to maintain their ability to bind well to the target. The resulting SMART antibody retains most or all of the binding ability of the murine antibody, but is about 90% human.

In 1996, the Company was issued U.S. and European patents which cover, in most circumstances, humanized antibodies that contain amino acid substitutions from the murine antibody in their framework. The Company believes that most humanized antibodies require such amino acid substitutions in order to maintain high binding ability. The patents also cover pharmaceutical compositions containing such humanized antibodies and other aspects of PDL's SMART antibody technology. Two additional U.S. patents that cover other aspects of PDL's humanization technology were issued in 1997. PDL has filed similar patent applications in Japan and other countries. See "-- Patents and Proprietary Technology."

OTHER PDL TECHNOLOGIES. In addition to its SMART antibody technology, PDL employs additional antibody-based drug development technologies to overcome shortcomings of murine antibodies. The Company is also pursuing a rational drug design program that leverages its computer expertise to potentially develop new drug candidates.

Human Antibodies. The use of fully human monoclonal antibodies is another approach to avoiding many of the problems associated with murine antibodies. In April 1993, PDL exclusively licensed from Novartis its patented "trioma" technology to generate certain human antibodies, along with four human anti-viral antibodies. The trioma technology is used to produce fully human antibodies against viruses and potentially other organisms which infect humans. A key aspect of the technology is the use of a mouse-human hybrid cell line as the fusion partner to immortalize human antibody-producing B cells. Trioma cell lines generated in this manner often stably produce human antibodies. As with SMART antibodies, clinical trials and preclinical studies have shown that PDL's human antibodies generally avoid a HAMA response and have a longer half-life than murine antibodies. See "-- Collaborative and Licensing Arrangements -- Novartis."

Other New Technologies. The Company is pursuing a rational drug design program focusing on small molecules by extending the Company's computer modeling tools originally developed for its SMART antibody program. Rational drug design utilizes computer models of proteins and their interactions with smaller molecules to accelerate discovery and optimization of new drug compounds. Although PDL's technology is at an early stage, the Company believes that this application of its modeling algorithms may ultimately be used to develop non-antibody, small-molecule drug candidates. For that purpose, PDL has initiated a program in medicinal and combinatorial chemistry.

As one aspect of its small-molecule program, PDL has begun a research program to discover and develop new antibiotics for the treatment of certain microbial infections, including infections caused by microbes that have developed resistance to available antibiotics. This program, which utilizes technology to identify microbial genes that are differentially expressed when microbes infect a host, was developed by Stanley Falkow, Ph.D., Professor of Microbiology, Immunology and

Medicine at Stanford University School of Medicine and a PDL Distinguished Investigator and Director, who will direct the program. If discovered, these microbial genes and their products may become potential targets for novel antibiotics, which may be identified by high throughput screening and medicinal chemistry. It is anticipated that much or all of those aspects of the work will be conducted by PDL's corporate partners. PDL has entered into a collaborative agreement with Eli Lilly & Company ("Lilly"), under which Lilly will receive rights to products generated under this research program through research involving seven specific genera of bacteria. See "-- Collaborative and Licensing Arrangements."

BUSINESS STRATEGY

PDL's objective is to leverage its research expertise and intellectual property primarily in the field of antibodies to become a profitable, research-based biotechnology company that manufactures and, in North America, markets its own products. PDL's strategy to achieve this objective involves the following elements:

Expand Product Portfolio. The Company believes that its SMART antibody technology is capable of converting essentially any promising murine antibody into a humanized antibody better suited for therapeutic use. As a result, the Company has been able to rapidly develop a broad portfolio of product candidates with potential applications to the prevention and treatment of autoimmune and inflammatory conditions, cancers, viral infections, and other diseases. This diverse product pipeline enhances commercial opportunities and reduces the Company's reliance on individual products.

Establish Collaborative Arrangements. The Company actively seeks corporate partnerships with pharmaceutical companies, and to date has entered into partnerships with numerous such companies, including Roche and Lilly. Typically, the Company receives a licensing and signing fee, research funding and/or milestone payments, and the rights to royalties on product sales, if any, in return for certain marketing rights to one or more potential products developed at PDL. These revenues help to defray PDL's own product development expenses, while the partner typically bears significant direct responsibility for certain product development activities and expenses.

Leverage Patent Position. An important aspect of PDL's business strategy is to obtain both near-term revenues and potential royalties by providing humanization services for promising murine antibodies of other parties and/or licensing limited rights under its issued humanized antibody patents and corresponding patent applications to other companies developing humanized antibodies. These arrangements typically involve a combination of licensing and signing fees, milestone payments, annual maintenance fees and royalties on product sales, if any. December 1996, PDL has also entered into seven patent licensing agreements with other companies developing humanized antibodies. Company's patents are also helpful in inducing other companies to enter into collaborative relationships with the Company, in which PDL uses its proprietary technology to develop SMART antibodies based on promising murine antibodies developed by the other companies. PDL has entered into eight such humanization relationships, including six since December 1995. In addition to paying PDL licensing and signing and other fees and royalties on product sales, if any, in some cases the other companies have granted PDL options to obtain North American co-promotion rights.

Retain North American Marketing Rights. Where appropriate, PDL retains North American marketing rights to its potential products. This strategy provides the Company with future revenue opportunities.

COLLABORATIVE, HUMANIZATION AND PATENT LICENSING ARRANGEMENTS

Roche. In 1989, PDL entered into agreements with Roche to collaborate on the research and development of SMART antibodies against the IL-2 receptor, including Zenapax. Under these agreements, Roche has exclusive, worldwide rights to manufacture, market and sell Zenapax. The arrangement provides for research and development funding, milestone and bonus payments and royalties to PDL under the agreements. Most of such milestone and bonus payments have already been received from Roche, and Roche has completed its research funding to PDL under these agreements, although Roche will continue to fund its own clinical development activities. PDL has begun to receive royalties on sales of Zenapax in 1998. Royalties to PDL are subject to certain offsets for milestones and third party royalties paid by Roche under the arrangement. See "Risk Factors -- Dependence on Roche with Respect to Zenapax."

Corange/Boehringer Mannheim. In October 1993, PDL and Corange entered into a collaborative arrangement providing for the grant of exclusive marketing rights in certain territories for a number of products in development. In consideration for these rights, Corange paid to PDL a \$10 million licensing and signing fee and \$30 million in research and development funding over three years and agreed to certain milestone payments and the payment of royalties on future product sales, if any. Product rights and duties under this arrangement were subsequently assigned and delegated to Corange's subsidiary, Boehringer Mannheim. In conjunction with this collaborative arrangement, PDL and Corange also entered into a stock purchase agreement, a standstill agreement and a registration rights agreement pursuant to which Corange invested an aggregate of \$75 million in PDL through the purchase of approximately 2.433 million newly issued shares of common stock in

December 1993 and 1994. In March 1997, Corange sold 750,000 of those shares as part of a registered public offering filed by the Company. In addition, the agreement with Corange providing for restrictions on disposition of the remaining 1,682,877 shares held by Corange expired in March 1998.

In 1994 and 1995, the parties amended certain of the agreements in this collaborative arrangement. As part of these amendments, the parties agreed to terminate Boehringer Mannheim's rights to certain preclinical products. In addition, in December 1997, Boehringer Mannheim notified PDL that it was terminating its rights to OST 577 and PROTOVIR. As a result, Boehringer Mannheim currently has exclusive marketing rights outside of North America and Asia for the SMART Anti-L-Selectin Antibody and North American co-promotion rights and exclusive marketing rights outside of North America for an additional antibody to an undisclosed cardiovascular target.

Further, in March 1998, Roche completed the acquisition of Corange. The Company expects that Roche will review the drug development programs of the Company and Boehringer Mannheim. The Company cannot predict the outcome or timing of such review or whether or not it will occur and in particular, whether Roche will decide to continue, modify or terminate either or both of the remaining Boehringer Mannheim development programs under the collaborative agreement with the Company. In addition, Roche acquired 1,682,877 shares of the Company's common stock held by Corange. These shares are no longer subject to contractual limitations on disposition. See "Risk Factors -- Dependence on Collaborative Partners."

In December 1997, PDL entered into a collaborative agreement with Lilly to discover and develop new antimicrobial agents for the treatment of certain microbial infections, including those caused by microbes that have developed resistance to available antibiotics. The agreement involves a program to identify microbial genes that are differentially expressed when microbes infect a host. PDL received an initial payment of \$3 million under the agreement. The agreement further provides for additional research funding of up to \$9.6 million in the second through fifth years of the agreement, if the agreement is not earlier terminated. PDL can also receive milestone payments for identification of gene targets and for each compound selected for development by Lilly, Lilly will receive exclusive worldwide rights to gene targets and human pharmaceutical and related diagnostic products generated under the research program directed to seven specific genera of bacteria. PDL is entitled to royalties on Lilly sales of such products, if any, and the parties have agreed to negotiate co-promotion rights in the U.S. and Canada. In addition, under certain conditions, PDL will have an option to develop certain compounds identified through the collaboration.

Novartis. In April 1993, PDL and Novartis entered into agreements providing for the grant of exclusive licenses to PDL of four human antiviral antibodies and other related technology and antibodies from Novartis. The four human monoclonal antibodies target cytomegalovirus, the hepatitis B virus, herpes simplex viruses, and varicella zoster virus, respectively. In addition, PDL received an exclusive license to the SMART ABL 364 Antibody, an antibody previously humanized by PDL for Novartis. This arrangement also included exclusive licenses to the Novartis trioma human antibody technology and patents as well as the purchase of certain antibody supplies and related manufacturing equipment. In consideration for the licenses and assets transferred, PDL initially paid Novartis \$5 million and agreed to provide up to an additional \$5 million in future milestone payments in the event of certain product approvals under the agreements.

Under the terms of the Novartis agreements, PDL has the right to manufacture and market the antibodies acquired from Novartis throughout the world. Novartis retained certain co-promotion and co-marketing rights, and rights to royalties on sales by PDL of licensed products in countries where Novartis does not sell these antibodies with PDL under the co-promotion and co-marketing arrangements. In November 1993, PDL paid Novartis an additional \$2.75 million to amend the April 1993 agreement relating to the human antibodies in order to terminate certain of Novartis' co-promotion and co-marketing rights in countries outside of the U.S., Canada and Asia and to reduce royalties Novartis may earn from the sale of human antibody products in countries outside of the U.S., Canada and Asia.

Kanebo. In February 1992, PDL and Kanebo, Ltd. ("Kanebo") entered into a product licensing agreement whereby Kanebo received an exclusive license to the SMART M195 Antibody for therapeutic uses in certain Asian countries, including Japan, in exchange for a licensing and signing fee, research funding, milestone payments and royalties on product sales, if any. The research funding period under the agreement expired in September 1993. Also in September 1993 and May 1995, PDL entered into purchase agreements with Kanebo pursuant to which PDL sold Kanebo preclinical and clinical quantities of the SMART M195 Antibody. Kanebo is currently in the clinical stage of development with this antibody.

Yamanouchi. In February 1991, PDL and Yamanouchi entered into a collaborative agreement providing for the humanization of a murine antiplatelet (anti-gpIIb/IIIa) antibody developed by Yamanouchi for potentially treating certain cardiovascular disorders. Yamanouchi is currently conducting Phase I clinical trials in Europe with this humanized antibody. Yamanouchi has exclusive, worldwide rights to this

antibody and is responsible for all clinical trials and for obtaining necessary government regulatory approvals. The agreement provides for milestone payments, all of which have been received by the Company, and royalties on product sales, if any.

Mochida. In December 1995, PDL and Mochida Pharmaceutical Co., Ltd. ("Mochida") entered into an agreement providing for the humanization by PDL of a murine antibody that has potential for treating certain infectious diseases. PDL received a licensing and signing fee and milestone payments and can earn royalties on product sales, if any. In addition, PDL has an option to co-promote the antibody in North

Toagosei. In September 1996, PDL and Toagosei Co., Ltd. ("Toagosei") entered into an agreement providing for the humanization by PDL of a murine antibody that has potential for treating cancer. PDL received a licensing and signing fee and milestone payments and can earn royalties on product sales, if any. PDL also has an option to co-promote the compound in North America. In addition, in the fourth quarter of 1997, Toagosei made a \$2.0 million private equity investment in PDL in return for 44,568 newly issued shares of PDL common stock at a purchase price of \$44.875 per share.

Roche. In October 1996, PDL entered into an agreement with Roche providing for the humanization by PDL of an additional murine antibody to a different target than Zenapax. PDL received a licensing and signing fee and a milestone payment under this agreement. Roche, however, recently discontinued development of this antibody.

Genetics Institute. In December 1996, PDL and Genetics Institute, Inc. ("Genetics Institute"), a wholly-owned subsidiary of American Home Products, entered into an agreement pursuant to which PDL will initially develop three humanized monoclonal antibodies based on murine antibodies developed by Genetics Institute that modulate the immune co-stimulatory pathway. In addition, Genetics Institute received a worldwide, nonexclusive license for those antibodies under PDL's humanized antibody patents. To date, PDL has received a \$2.5 million licensing and signing fee and a milestone payment and is entitled to receive additional milestone payments and royalties on product sales, if any. In addition, PDL received an option to co-promote the products in North America. The agreement contemplates that PDL may collaborate with Genetics Institute to humanize additional antibodies in the field.

Teijin. In March 1997, PDL and Teijin Limited ("Teijin") entered into an agreement providing for the humanization by PDL of a murine antibody to a toxin produced by the E. coli 0157 bacteria that can cause serious illness or death from the consumption of contaminated food. To date, PDL has received a licensing and signing fee and milestone payment and can earn further milestone payments and royalties on product sales, if any.

Ajinomoto. In July 1997, PDL and Ajinomoto Co., Inc. ("Ajinomoto") entered into an agreement providing for the humanization by PDL of a murine antibody directed at cardiovascular conditions. To date, PDL has received a licensing and signing fee and can earn milestone payments and royalties on product sales, if any. In addition, PDL received certain rights to obtain co-promotion rights to the potential product in North America.

Patent Licenses. Since December 1996, PDL has entered into seven patent licensing agreements with five companies relating to antibodies humanized by those companies. In each agreement, PDL granted a worldwide, nonexclusive license under its humanized antibody patents to the other company for an antibody to a specific target antigen. In each case, PDL received a licensing and signing fee and the right to receive royalties on product sales, if any. Under some of these agreements, PDL can also receive milestone payments.

For a discussion of certain risks related to the Company's humanization and patent licensing arrangements, see "-- Uncertainty of Patents and Proprietary Technology; Opposition Proceedings" and "-- Dependence on Collaborative Partners."

MANUFACTURING

PDL currently leases approximately 47,000 square feet housing its manufacturing facilities in Plymouth, Minnesota. PDL intends to continue to manufacture potential products for use in preclinical studies and clinical trials using this manufacturing facility in accordance with standard procedures that comply with current Good Manufacturing Practices ("cGMP") and appropriate regulatory standards. Roche is responsible for manufacturing Zenapax.

In order to obtain regulatory approvals and to expand its capacity to produce its products for commercial sale at an acceptable cost, PDL will need to improve and expand its existing manufacturing capabilities and demonstrate to the FDA its ability to manufacture its products using controlled, reproducible processes. Accordingly, the Company is evaluating plans to improve and expand the capacity of its current facility. Such plans, if fully implemented, would result in substantial costs to the Company and may require a suspension of manufacturing operations during construction. See "Risk Factors -- Absence of Manufacturing Experience" and "-- Uncertainties Resulting From Manufacturing Changes."

The Company's success is significantly dependent on its ability to obtain patent protection for its products and technologies and to preserve its trade secrets and operate without infringing on the proprietary rights of third parties. PDL files and prosecutes patent applications to protect its inventions. No assurance can be given that the Company's pending patent applications will result in the issuance of patents or that any patents will provide competitive advantages or will not be invalidated or circumvented by its competitors. Moreover, no assurance can be given that patents are not issued to, or patent applications have not been filed by, other companies which would have an adverse effect on the Company's ability to use, manufacture or market its products or maintain its competitive position with respect to its products. Other companies obtaining patents claiming products or processes useful to the Company may bring infringement actions against the Company. As a result, the Company may be required to obtain licenses from others or not be able to use, manufacture or market its products. Such licenses may not be available on commercially reasonable terms, if at all.

PDL has a number of patents and has exclusively licensed certain patents regarding the trioma technique and related antibodies from Novartis. In June 1996, PDL was issued a U.S. patent covering Zenapax and certain related antibodies against the IL-2 receptor. PDL has been issued a patent by the European Patent Office ("EPO") and three patents by the U.S. Patent and Trademark Office ("PTO"). PDL believes, based on its review of the scientific literature, that most humanized antibodies are covered by one or more of these patents. In addition, PDL is currently prosecuting other patent applications with the PTO and in other countries, including members of the European Patent Convention, Canada, Japan and Australia. The patent applications are directed to various aspects of PDL's SMART and human antibodies, antibody technology and other programs, and include claims relating to compositions of matter, methods of preparation and use of a number of PDL's compounds. However, PDL does not know whether any pending applications will result in the issuance of patents or whether such patents will provide protection of commercial significance. Further, there can be no assurance that PDL's patents will prevent others from developing competitive products using related technology.

Patents in the U.S. are issued to the party that is first to invent the claimed invention. Since patent applications in the U.S. are maintained in secrecy until patents issue, PDL cannot be certain that it was the first inventor of the invention covered by its pending patent applications or patents or that it was the first to file patent applications for such inventions. The patent positions of biotechnology firms generally are highly uncertain and involve complex legal and factual questions. No consistent policy has emerged regarding the breadth of claims in biotechnology patents, and patents of biotechnology products are uncertain, so that even issued patents may later be modified or revoked by the PTO or the courts. Moreover, the issuance of a patent in one country does not assure the issuance of a patent with similar claims in another country, and claim interpretation and infringement laws vary among countries, so the extent of any patent protection may vary in different territories.

The EPO patent applies in the United Kingdom, Germany, France, Italy and eight other Western European countries. The EPO (but not PTO) procedures provide for a nine-month opposition period in which other parties may submit arguments as to why the patent was incorrectly granted and should be withdrawn or limited. Eighteen notices of opposition to PDL's European patent were filed during the opposition period, including oppositions by major pharmaceutical and biotechnology companies, which cited references and made arguments not considered by the EPO and PTO before grant of the respective patents. The entire opposition process, including appeals, may take several years to complete, and during this lengthy process, the validity of the EPO patent will be at issue, which may limit the Company's ability to negotiate or collect royalties or to negotiate future collaborative research and development agreements based on this patent. PDL intends to vigorously defend the European patent and, if necessary, the U.S. patents; however, there can be no assurance that the Company will prevail in the opposition proceedings or any litigation contesting the validity or scope of these patents. If the outcome of the European opposition proceeding or any litigation involving the Company's antibody humanization patents were to be unfavorable, the Company's ability to collect royalties on existing licensed products and to license its patents relating to humanized antibodies may be materially adversely effected, which could have a material adverse affect on the business and financial condition of the Company. In addition, such proceedings or litigation, or any other proceedings or litigation to protect the Company's intellectual property rights or defend against infringement claims by others, could result in substantial costs and diversion of management's time and attention, which could have a material adverse effect on the business and financial condition of the Company.

A number of companies, universities and research institutions have filed patent applications or received patents in the areas of antibodies and other fields relating to PDL's programs. Some of these applications or patents may be competitive with PDL's applications or contain claims that conflict with those made under PDL's patent applications or patents. Such conflicts could prevent issuance of patents to PDL,

provoke an interference with PDL's patents or result in a significant reduction in the scope or invalidation of PDL's patents, if issued. An interference is an administrative proceeding conducted by the PTO to determine the priority of invention and other matters relating to the decision to grant patents. Moreover, if patents are held by or issued to other parties that contain claims relating to PDL's products or processes, and such claims are ultimately determined to be valid, no assurance can be given that PDL would be able to obtain licenses to these patents at a reasonable cost, if at all, or to develop or obtain alternative technology.

The Company is aware that Celltech has been granted a patent by the EPO covering certain humanized antibodies, which PDL has opposed, and Celltech has a pending application for a corresponding U.S. patent (the "U.S. Adair Patent Application"). Because U.S. patent applications are maintained in secrecy, the U.S. Adair Patent Application remains confidential. Accordingly, there can be no assurance that such claims would not cover any of PDL's SMART antibodies or be competitive with or conflict with claims in PDL's patents or patent applications. If the U.S. Adair Patent Application issues and if it is determined to be valid and to cover any of PDL's SMART antibodies, there can be no assurance that PDL would be able to obtain a license on commercially reasonable terms, if at all. If the claims of the U.S. Adair Patent Application conflict with claims in PDL's patents or patent applications, there can be no assurance that an interference would not be declared by the PTO, which could take several years to resolve and could involve significant expense to the Company. Also, such conflict could prevent issuance of additional patents to PDL relating to humanization of antibodies or result in a significant reduction in the scope or invalidation of PDL's patents, if issued. Moreover, uncertainty as to the validity or scope of patents issued to PDL relating generally to humanization of antibodies may limit the Company's ability to negotiate or collect royalties or to negotiate future collaborative research and development agreements based on these patents.

PDL has obtained a nonexclusive license under a patent held by Celltech (the "Boss Patent") relating to PDL's current process for producing SMART and human antibodies. An interference proceeding was declared in early 1991 by the PTO between the Boss Patent and a patent application filed by Genentech, Inc. ("Genentech") to which PDL does not have a license. PDL is not a party to the interference proceeding, and the timing and outcome of the proceeding or the scope of any patent that may be subsequently issued cannot be predicted. If the Genentech patent application were held to have priority over the Boss Patent, and if it were determined that PDL's processes and products were covered by a patent issuing from such patent application, PDL might be required to obtain a license under such patent or to significantly alter its processes or products. There can be no assurance that PDL would be able to successfully alter its processes or products to avoid infringing such patent or to obtain such a license on commercially reasonable terms, if at all, and the failure to do so could have a material adverse effect on the business and financial condition of the Company.

The Company is aware that Lonza Biologics, Inc. has a patent issued in Europe to which PDL does not have a license (although Roche has advised the Company that it has a license covering Zenapax), which may cover the process the Company uses to produce its potential products. If it were determined that PDL's processes were covered by such patent, PDL might be required to obtain a license under such patent or to significantly alter its processes or products, if necessary to manufacture or import its products in Europe. There can be no assurance that PDL would be able to successfully alter its processes or products to avoid infringing such patent or to obtain such a license on commercially reasonable terms, if at all, and the failure to do so could have a material adverse effect on the business and financial condition of the Company.

Also, Genentech has patents in the U.S. and Europe that relate to chimeric antibodies. Although Genentech's European patent was declared invalid by the EPO in the opposition process, Genentech has appealed that decision, thereby staying that decision. If Genentech were to assert that the Company's SMART antibodies infringe these patents, PDL might have to choose whether to seek a license or to challenge in court the validity of such patents or Genentech's claim of infringement. There can be no assurance that PDL would be successful in either obtaining such a license on commercially reasonable terms, if at all, or that it would be successful in such a challenge of the Genentech patents, and the failure to do so could have a material adverse effect on the business and financial condition of the Company.

In addition to seeking the protection of patents and licenses, PDL also relies upon trade secrets, know-how and continuing technological innovation which it seeks to protect, in part, by confidentiality agreements with employees, consultants, suppliers and licensees. There can be no assurance that these agreements will not be breached, that PDL would have adequate remedies for any breach or that PDL's trade secrets will not otherwise become known, independently developed or patented by competitors.

GOVERNMENT REGULATION

The manufacturing, testing and marketing of PDL's products are subject to regulation by numerous governmental authorities in the U.S. and other countries based upon their pricing, safety and efficacy. In

the U.S., pharmaceutical (biologic) products are subject to rigorous FDA regulation. The federal Food, Drug and Cosmetic Act ("FD&C Act"), Public Health Service Act ("PHS Act") and other federal, state and local regulations govern the manufacture, testing, labeling, storage, record keeping, clinical and nonclinical studies to assess safety and efficacy, approval, advertising and promotion of pharmaceutical products. The process of developing and obtaining approval for a new pharmaceutical product within this regulatory framework requires a number of years and the expenditure of substantial resources. There can be no assurance that necessary approvals will be obtained on a timely basis, if at all.

In addition to the requirement for FDA approval of each pharmaceutical product, each pharmaceutical product manufacturing facility must be registered with, and approved by, the FDA. The manufacturing and quality control procedures must conform to cGMP in order to receive FDA approval. Pharmaceutical product manufacturing establishments are subject to inspections by the FDA and local authorities as well as inspections by authorities of other countries. To supply pharmaceutical products for use in the U.S., foreign manufacturing establishments must comply with cGMP and are subject to periodic inspection by the FDA or by corresponding regulatory agencies in such countries under reciprocal agreements with the FDA. Moreover, pharmaceutical product manufacturing facilities may also be regulated by state, local and other authorities.

For marketing of pharmaceutical products outside the U.S., PDL is subject to foreign regulatory requirements governing marketing approval and pricing, and FDA and other U.S. export provisions should the pharmaceutical product be manufactured in the U.S. Requirements relating to the manufacturing, conduct of clinical trials, product licensing, promotion, pricing and reimbursement vary widely in different countries. Difficulties or unanticipated costs or price controls may be encountered by PDL or its licensees or its marketing partners in their respective efforts to secure necessary governmental approvals to market potential pharmaceutical products, which could delay or preclude PDL or its licensees or its marketing partners from marketing their potential pharmaceutical products.

The basic steps required by the FDA before a new pharmaceutical product for human use may be marketed in the U.S. include (i) preclinical laboratory and animal tests, (ii) submission to the FDA of an application for an Investigational New Drug ("IND") which must be reviewed by the FDA before clinical trials may begin, (iii) completion of adequate and well-controlled human clinical trials to establish the safety and efficacy of the pharmaceutical product for its intended use, (iv) for therapeutic monoclonal antibodies, submission of a Biologics License Application ("BLA") to the FDA, and (v) FDA approval of the BLA prior to any commercial sale or shipment of the pharmaceutical product.

Preclinical tests for safety are conducted in the laboratory and in animals in compliance with FDA good laboratory practices regulations. Other additional tests are conducted to assess the potential safety and biological activity of the pharmaceutical product in order to support a sponsor's contention that it is reasonably safe to conduct proposed clinical investigations. The results of these studies are submitted to the FDA as part of an IND. Testing in humans may begin 30 days after filing an IND unless the FDA requests additional information or raises questions or concerns that must be resolved before the FDA will permit the study to proceed. In such cases, there can be no assurance that resolution will be achieved in a timely manner, if at all.

Clinical trials are conducted in accordance with good clinical practices based on regulations promulgated by the FDA and under protocols that include detail on the objectives of the trial, the parameters to be used to monitor safety, and the efficacy criteria to be evaluated. Each protocol must be submitted to the FDA as part of an IND. Further, each clinical trial must be reviewed and approved by an independent institutional review board ("IRB") at each of the medical institutions at which the trial will be conducted. There can be no assurance that submission of a protocol to an IRB or an IND to the FDA will result in the initiation or completion of a clinical investigation. Clinical trials are typically conducted in three sequential phases, although the phases may overlap. In Phase I, the pharmaceutical product is typically tested in a small number of healthy people or patients to initially determine safety, dose tolerance (including side effects associated with increasing doses), metabolism, distribution and excretion. Phase II usually involves studies in a limited patient population to obtain a preliminary determination of efficacy, to identify an optimal dose and to further identify safety risks. Phase III trials are larger, multi-center trials undertaken to provide further confirmation of efficacy and provide additional safety information in a specific patient population. The FDA reviews the results of the trials and may discontinue them at any time for safety reasons or other reasons if they are deemed to be non-compliant with FDA regulations. There can be no assurance that Phase I, II or III clinical trials will be completed successfully within any specific time period, if at all, with respect to any of the Company's or its collaborators' pharmaceutical products that are subject to such testing requirements.

Recently, the FDA has been engaged in regulatory reform efforts aimed at reducing the regulatory burden on manufacturers of certain biotechnology products. For example, in May 1996, the FDA issued regulations that eliminate the previous requirement of a separate establishment license application, in addition to the product license

application, for certain categories of biotechnology products, including the pharmaceutical products of the Company. Furthermore, the FDA has announced its intention to adopt a single approval application for all pharmaceutical products. There can be no assurance, however, that implementation of these changes will benefit the Company or otherwise reduce the regulatory requirements applicable to the Company or that these changes will not result in the imposition of other, more burdensome obligations on the Company in connection with regulatory review of the Company's products. In any event, the results of the preclinical and clinical trials and a description of the manufacturing process and tests to control the quality of the pharmaceutical product must be submitted to the FDA in a BLA for approval. The approval process is likely to require substantial time and resource commitment by an applicant. Approval is influenced by a number of factors, including the severity of the disease being treated, availability of alternative treatments, and the risks and benefits of the proposed therapeutic as demonstrated in the clinical trials. Additional data or clinical trials may be requested by the FDA and may delay approval. There is no assurance that FDA approval will be granted on a timely basis, if at

After FDA approval for the initial indications and dosage forms, further studies may be required by the FDA to gain approval for labeling of the pharmaceutical product for other disease indications or dosage forms, or to monitor for adverse effects. Both before and after approval is obtained, a pharmaceutical product, its manufacturer and the holder of the BLA for the pharmaceutical product are subject to comprehensive regulatory oversight. The FDA may deny a BLA if applicable regulatory criteria are not satisfied, require additional testing or information or require postmarketing testing and surveillance to monitor the safety or efficacy of the pharmaceutical product. Moreover, even if regulatory approval is granted, such approval may be subject to limitations on the indicated uses for which the pharmaceutical product may be marketed.

Approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems with the pharmaceutical product occur following approval. Among the conditions for BLA approval is the requirement that the manufacturer of the pharmaceutical product comply with cGMP. In addition, under a BLA, the manufacturer continues to be subject to facility inspection and the applicant must assume responsibility for compliance with applicable pharmaceutical product and establishment standards. Violations of regulatory requirements at any stage may result in various adverse consequences, including FDA refusal to accept a license application, total or partial suspension of licensure, delay in approving or refusal to approve the pharmaceutical product or pending marketing approval applications, warning letters, fines, injunctions, withdrawal of the previously approved pharmaceutical product or marketing approvals and/or the imposition of criminal penalties against the manufacturer and/or BLA holders. In addition, later discovery of previously unknown problems may result in new restrictions on such pharmaceutical product, manufacturer and/or BLA holders, including withdrawal of the pharmaceutical product or marketing approvals and pharmaceutical product recalls or seizures.

In addition to regulations enforced by the FDA, the Company is subject to federal, state and local laws and regulations governing the use, generation, manufacture, storage, discharge, handling and disposal of certain materials and wastes used in its operations, some of which are classified as "hazardous." There can be no assurance that the Company will not be required to incur significant costs to comply with environmental laws, the Occupational Safety and Health Act, and state, local and foreign counterparts to such laws, rules and regulations as its manufacturing and research activities are increased or that the operations, business and future profitability of the Company will not be adversely affected by current or future laws, rules and regulations.

Although the Company believes that its safety processes and procedures and its handling and disposing of materials and wastes comply with applicable laws, rules and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. In addition, the Company cannot predict the extent of the adverse effect on its business or the financial and other costs that might result from any new government requirements arising out of future legislative, administrative or judicial actions. Compliance with such laws, rules and regulations does not have, nor is such compliance presently expected to have, a material adverse effect on the Company's business. However, the Company cannot predict the extent of the adverse effect on its business or the financial and other costs that might result from any new government requirements arising out of future legislative, administrative or judicial actions.

COMPETITION

The Company's potential products are intended to address a wide variety of disease conditions, including autoimmune diseases, inflammatory conditions, cancers and viral infections. Competition with respect to these disease conditions is intense and is expected to increase. This competition involves, among other things, successful research and development efforts, obtaining appropriate regulatory approvals, establishing and defending intellectual property rights, successful product manufacturing, marketing, distribution, market and physician acceptance, patient compliance, price and potentially securing

eligibility for reimbursement or payment for the use of the Company's product. The Company believes its most significant competitors may be fully integrated pharmaceutical companies with substantial expertise in research and development, manufacturing, testing, obtaining regulatory approvals, marketing and securing eligibility for reimbursement or payment, and substantially greater financial and other resources than the Company. Smaller companies also may prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical companies. Furthermore, academic institutions, governmental agencies and other public and private research organizations conduct research, seek patent protection, and establish collaborative arrangements for product development, clinical development and marketing. These companies and institutions also compete with the Company in recruiting and retaining highly qualified personnel. The biotechnology and pharmaceutical industries are subject to rapid and substantial technological change. The Company's competitors may develop and introduce other technologies or approaches to accomplishing the intended purposes of the Company's products which may render the Company's technologies and products noncompetitive and obsolete.

In addition to currently marketed competitive drugs, the Company is aware of potential products in research or development by its competitors that address all of the diseases being targeted by the Company. These and other products may compete directly with the potential products being developed by the Company. In this regard, the Company is aware that potential competitors are developing antibodies or other compounds for treating autoimmune diseases, inflammatory conditions, cancers and viral infections. In particular, a number of other companies have developed and will continue to develop human antibodies and humanized antibodies. In addition, protein design is being actively pursued at a number of academic and commercial organizations, and several companies have developed or may develop technologies that can compete with the Company's SMART and human antibody technologies. There can be no assurance that competitors will not succeed in more rapidly developing and marketing technologies and products that are more effective than the products being developed by the Company or that would render the Company's products or technology obsolete or noncompetitive. Further, there can be no assurance that the Company's collaborative partners will not independently develop products competitive with those licensed to such partners by the Company, thereby reducing the likelihood that the Company will receive revenues under its agreements with such partners.

Any potential product that the Company succeeds in developing and for which it gains regulatory approval must then compete for market acceptance and market share. For certain of the Company's potential products, an important factor will be the timing of market introduction of competitive products. Accordingly, the relative speed with which the Company and competing companies can develop products, complete the clinical testing and approval processes, and supply commercial quantities of the products to the market is expected to be an important determinant of market success. Other competitive factors include the capabilities of the Company's collaborative partners, product efficacy and safety, timing and scope of regulatory approval, product availability, marketing and sales capabilities, reimbursement coverage, the amount of clinical benefit of the Company's products relative to their cost, method of administration, price and patent protection. There can be no assurance that the Company's competitors will not develop more efficacious or more affordable products, or achieve earlier product development completion, patent protection, regulatory approval or product commercialization than the Company. The occurrence of any of these events by the Company's competitors could have a material adverse effect on the business and financial condition of the Company.

HUMAN RESOURCES

As of December 31, 1997, PDL had 217 full-time employees, of whom 29 hold Ph.D. and/or M.D. degrees. Of the total, 76 employees were engaged in research and development, 47 in quality assurance and compliance, 19 in clinical and regulatory, 40 in manufacturing and 35 in general and administrative functions. PDL's scientific staff members have diversified experience and expertise in molecular and cell biology, biochemistry, virology, immunology, protein chemistry, computational chemistry and computer modeling. PDL's success will depend in large part on its ability to attract and retain skilled and experienced employees. None of PDL's employees are covered by a collective bargaining agreement, and PDL considers its relations with its employees to be good.

ENVIRONMENT

PDL seeks to comply with environmental statutes and the regulations of federal, state and local governmental agencies. PDL has put into place processes and procedures and maintains records in order to monitor its environmental compliance. PDL may invest additional resources, if required, to comply with applicable regulations, and the cost of such compliance may increase significantly.

RISK FACTORS

This Annual Report contains, in addition to historical information, forward-looking statements which involve risks and uncertainties. The

Company's actual results may differ significantly from the results discussed in forward-looking statements. Factors that may cause such a difference include those discussed in the material set forth below and elsewhere in this document.

History Of Losses; Future Profitability Uncertain. The Company has a history of operating losses and expects to incur substantial additional expenses with resulting quarterly losses over at least the next several years as it continues to develop its potential products, to invest in new research areas and to devote significant resources to preclinical studies, clinical trials and manufacturing. As of December 31, 1997, the Company had an accumulated deficit of approximately \$59.4 million. The time and resource commitment required to achieve market success for any individual product is extensive and uncertain. No assurance can be given that the Company, its collaborative partners or licensees will successfully develop products, obtain required regulatory approvals, manufacture products at an acceptable cost and with appropriate quality, or successfully market such products.

The Company's revenues to date have consisted principally of research and development funding, licensing and signing fees and milestone payments from pharmaceutical, chemical and biotechnology companies under collaborative, humanization and patent licensing agreements. These revenues may vary considerably from quarter to quarter and from year to year, and revenues in any period may not be predictive of revenues in any subsequent period, and variations may be significant depending on the terms of the particular agreements. In addition, revenues from patent licensing arrangements and royalties are expected to vary considerably from quarter to quarter and from year to year, and revenues in any period may not be predictive of revenues in any subsequent period, with significant variations depending on the terms of the particular agreements. For example, revenues in each of the quarters of 1997 included several non-recurring payments in connection with new humanization, patent licensing and other research and development agreements, which payments resulted in significant variations in revenues in each of the quarters in 1997.

Hoffmann-La Roche Inc., including its affiliates ("Roche") has received regulatory approval to distribute Zenapax[R] in the U.S. and Switzerland. Zenapax, a product created by the Company, is licensed exclusively to Roche and the Company is dependent upon the efforts of Roche to obtain additional regulatory approvals and market Zenapax. The Company has begun receiving royalties in 1998 based on revenue from sales of Zenapax by Roche, with royalties based on U.S. sales paid to the Company on a quarterly basis and sales outside of the U.S. on a semi-annual basis. The Company intends to recognize royalty revenues when royalty reports are received from its collaborative partners, including Roche. This method of accounting for royalty revenues from the Company's licensees, taken together with the unpredictable timing of payments of nonrecurring licensing and signing fees and milestones under new and existing collaborative, humanization and patent licensing agreements, is likely to result in significant quarterly fluctuations in revenues in quarterly and annual periods. Thus, revenues in any period may not be predictive of revenues in any subsequent period, and variations may be significant depending on the terms of the particular agreements.

Although the Company anticipates entering into new collaborations from time to time, the Company presently does not anticipate continuing to realize non-royalty revenue from its new and proposed collaborations at levels commensurate with the revenue historically recognized under its older collaborations. Moreover, the Company anticipates that it will incur significant operating expenses as the Company increases its research and development, manufacturing, preclinical, clinical and administrative and patent activities. Accordingly, in the absence of substantial revenues from new corporate collaborations or patent licensing arrangements, royalties on sales of Zenapax or other products licensed under the Company's intellectual property rights or other sources, the Company expects to incur substantial operating losses in the foreseeable future as certain of its earlier stage potential products move into later stage clinical development, as additional potential products are selected as clinical candidates for further development, as the Company invests in new headquarters and additional laboratory and manufacturing facilities or capacity, as the Company defends or prosecutes its patents and patent applications, and as the Company invests in continuing and new research programs or acquires additional technologies, product candidates or businesses. For example, the Company expects to invest approximately \$13 million related to the construction of its new headquarters facilities located in Fremont, California, which improvements will include the expansion of laboratory and development facilities. The amount of net losses and the time required to reach sustained profitability are highly uncertain. To achieve sustained profitable operations, the Company, alone or with its collaborative partners, must successfully discover, develop, manufacture, obtain regulatory approvals for and market potential products. No assurances can be given that the Company will be able to achieve or sustain profitability, and results are expected to fluctuate from quarter to quarter and year to year.

Dependence On Roche With Respect To Zenapax. Roche controls the development and marketing of Zenapax, the most advanced of the Company's products in development, and the Company is dependent upon the resources and activities of Roche to pursue commercialization of Zenapax in order for the Company to receive royalties or additional milestone payments from the marketing and development of this product. There can be no

assurance that Roche's further development, regulatory and marketing efforts will be successful, including without limitation, whether or how quickly Zenapax might receive regulatory approvals in addition to those in the U.S. and Switzerland and how rapidly it might be adopted by the medical community. In addition, there can be no assurance that other independently developed products of Roche, including CellCept[R], or others will not compete with or prevent Zenapax from achieving meaningful sales. Roche's development and marketing efforts for CellCept may result in delays or a relatively smaller resource commitment to product launch and support efforts than might otherwise be obtained for Zenapax if this potentially competitive product were not under development or being marketed.

Moreover, Roche has stated that it plans to conduct or support other clinical trials of Zenapax in autoimmune indications. There can be no assurance that Roche will continue or pursue additional clinical trials in these indications or that, even if the additional clinical trials are completed, Zenapax will be shown to be safe and efficacious, or that the clinical trials will result in approval to market Zenapax in these indications. Any adverse event or announcement related to Zenapax would have a material adverse effect on the business and financial condition of the Company.

Uncertainty Of Clinical Trial Results. Before obtaining regulatory approval for the commercial sale of any of its potential products, the Company must demonstrate through preclinical studies and clinical trials that the product is safe and efficacious for use in the clinical indication for which approval is sought. There can be no assurance that the Company will be permitted to undertake or continue clinical trials for any of its potential products or, if permitted, that such products will be demonstrated to be safe and efficacious. Moreover, the results from preclinical studies and early clinical trials may not be predictive of results that will be obtained in later-stage clinical trials. Thus, there can be no assurance that the Company's present or future clinical trials will demonstrate the safety and efficacy of any potential products or will result in approval to market products.

In advanced clinical development, numerous factors may be involved that may lead to different results in larger, later-stage trials from those obtained in earlier stage trials. For example, early stage trials usually involve a small number of patients and thus may not accurately predict the actual results regarding safety and efficacy that may be demonstrated with a large number of patients in a later-stage trial. Also, differences in the clinical trial design between an early-stage and late-stage trial may cause different results regarding the safety and efficacy of a product to be obtained. In addition, many early stage trials are unblinded and based on qualitative evaluations by clinicians involved in the performance of the trial, whereas later stage trials are generally required to be blinded in order to provide more objective data for assessing the safety and efficacy of the product. Moreover, preliminary results from early stage trials may not be representative of results that may obtained as the trial proceeds to completion. For example, with respect to the preliminary results of the study of the elimination of cyclosporine through the use of the combination of Zenapax and CellCept presented in February 1998, there can be no assurance that the preliminary results with limited patient followup from a single center will be representative of the results that may be obtained as additional data is obtained from other centers participating in the study and final results from all patients are compiled.

The Company may at times elect to aggressively enter potential products into Phase I/II trials to determine preliminary efficacy in specific indications. In addition, in certain cases the Company has commenced clinical trials without conducting preclinical animal testing where an appropriate animal model does not exist. Similarly, the Company or its partners at times will conduct potentially pivotal Phase II/III or Phase III trials based on limited Phase I or Phase I/II data. As a result of these and other factors, the Company anticipates that only some of its potential products will show safety and efficacy in clinical trials and that the number of products that fail to show safety and efficacy may be significant.

Limited Experience With Clinical Trials; Risk Of Delay. The Company has conducted only a limited number of clinical trials to date. There can be no assurance that the Company will be able to successfully commence and complete all of its planned clinical trials without significant additional resources and expertise. In addition, there can be no assurance that the Company will meet its contemplated development schedule for any of its potential products. The inability of the Company or its collaborative partners to commence or continue clinical trials as currently planned, to complete the clinical trials on a timely basis or to demonstrate the safety and efficacy of its potential products, would have a material adverse effect on the business and financial condition of the Company.

The rate of completion of the Company's or its collaborators' clinical trials is significantly dependent upon, among other factors, the rate of patient enrollment. Patient enrollment is a function of many factors, including, among others, the size of the patient population, perceived risks and benefits of the drug under study, availability of competing therapies, access to reimbursement from insurance companies or government sources, design of the protocol, proximity of and access by patients to clinical sites, patient referral practices, eligibility criteria for the study in question and efforts of the sponsor of and

clinical sites involved in the trial to facilitate timely enrollment in the trial. Delays in the planned rate of patient enrollment may result in increased costs and expenses in completion of the trial or may require the Company to undertake additional studies in order to obtain regulatory approval if the applicable standard of care changes in the therapeutic indication under study. These considerations may lead the Company to consider the termination of ongoing clinical trials or halting further development of a product for a particular indication. For example, despite modifications to the clinical trial design in order to increase the rate of enrollment, patient accrual in the Company's ongoing Phase II/III trial of the SMART M195 Antibody in myeloid leukemia continues at a slower rate than the Company desirés. There can be no assurance that any further actions by the Company to accelerate accrual in this trial will be successful or, to the extent that they involve modifications in the design of the trial, will not cause that trial to be considered a Phase II clinical trial and thereby require one or more additional potentially pivotal trials to be conducted. In addition, if patient accrual continues at the current rate, the Company expects to review the viability of the ongoing clinical trial in the second half of 1998 in order to determine whether to further modify or terminate this trial in order to dedicate resources to more promising clinical development programs, which programs may or may not include the SMART M195 Antibody.

Uncertainty Of Patents And Proprietary Technology; Opposition Proceedings. The Company's success is significantly dependent on its ability to obtain patent protection for its products and technologies and to preserve its trade secrets and operate without infringing on the proprietary rights of third parties. The Company files and prosecutes patent applications to protect its inventions. No assurance can be given that the Company's pending patent applications will result in the issuance of patents or that any patents will provide competitive advantages or will not be invalidated or circumvented by its competitors. Moreover, no assurance can be given that patents are not issued to, or patent applications have not been filed by, other companies which would have an adverse effect on the Company's ability to use, manufacture or market its products or maintain its competitive position with respect to its products. Other companies obtaining patents claiming products or processes useful to the Company may bring infringement actions against the Company. As a result, the Company may be required to obtain licenses from others or not be able to use, manufacture or market its products. Such licenses may not be available on commercially reasonable terms, if at all.

Patents in the U.S. are issued to the party that is first to invent the claimed invention. Since patent applications in the U.S. are maintained in secrecy until patents issue, the Company cannot be certain that it was the first inventor of the inventions covered by its pending patent applications or that it was the first to file patent applications for such inventions. The patent positions of biotechnology firms generally are highly uncertain and involve complex legal and factual questions. No consistent policy has emerged regarding the breadth of claims in biotechnology patents, and patents of biotechnology products are uncertain so that even issued patents may later be modified or revoked by the U.S. Patent and Trademark Office ("PTO") or the courts in proceedings instituted by third parties. Moreover, the issuance of a patent in one country does not assure the issuance of a patent with similar claims in another country and claim interpretation and infringement laws vary among countries, so the extent of any patent protection may vary in different territories.

The Company has several patents and exclusive licenses covering its humanized and human antibody technology, respectively. With respect to its human antibody technology and antibodies, the Company has exclusively licensed certain patents from Novartis Pharmaceuticals Corporation ("Novartis") (formerly known as Sandoz Pharmaceuticals Corporation). With respect to its SMART antibody technology and antibodies, the Company has been issued fundamental patents by the European Patent Office ("EPO") and PTO. In addition, in June 1996 the Company was issued a U.S. patent covering Zenapax and certain related antibodies against the IL-2 receptor. The Company is also currently prosecuting other patent applications with the PTO and in other countries, including members of the European Patent Convention, Canada, Japan and Australia. The patent applications are directed to various aspects of the Company's SMART and human antibodies, antibody technology and other programs, and include claims relating to compositions of matter, methods of preparation and use of a number of the Company's compounds. However, the Company does not know whether any pending applications will result in the issuance of patents or whether such patents will provide protection of commercial significance. Further, there can be no assurance that the Company's patents will prevent others from developing competitive products using related technology.

With respect to its issued antibody humanization patents, the Company believes the patent claims cover Zenapax and, based on its review of the scientific literature, most humanized antibodies. The EPO (but not PTO) procedures provide for a nine-month opposition period in which other parties may submit arguments as to why the patent was incorrectly granted and should be withdrawn or limited. Eighteen notices of opposition to the Company's European patent were filed during the opposition period, including oppositions by major pharmaceutical and biotechnology companies, which cited references and made arguments not considered by the EPO and PTO before grant of the respective patents. The entire opposition process, including appeals, may take several years to

complete, and during this lengthy process, the validity of the EPO patent will be at issue, which may limit the Company's ability to negotiate or collect royalties or to negotiate future collaborative research and development agreements based on this patent. The Company intends to vigorously defend the European and, if necessary, the U.S. patent; however, there can be no assurance that the Company will prevail in the opposition proceedings or any litigation contesting the validity or scope of these patents. If the outcome of the European opposition proceeding or any litigation involving the Company's antibody humanization patents were to be unfavorable, the Company's ability to collect royalties on licensed products and to license its patents relating to humanized antibodies may be materially adversely affected, which could have a material adverse affect on the business and financial conditions of the Company. In addition, such proceedings or litigation, or any other proceedings or litigation to protect the Company's intellectual property rights or defend against infringement claims by others, could result in substantial costs and a diversion of management's time and attention, which could have a material adverse effect on the business and financial condition of the Company.

A number of companies, universities and research institutions have filed patent applications or received patents in the areas of antibodies and other fields relating to the Company's programs. Some of these applications or patents may be competitive with the Company's applications or contain claims that conflict with those made under the Company's patent applications or patents. Such conflict could prevent issuance of patents to the Company, provoke an interference with the Company's patents or result in a significant reduction in the scope or invalidation of the Company's patents, if issued. An interference is an administrative proceeding conducted by the PTO to determine the priority of invention and other matters relating to the decision to grant patents. Moreover, if patents are held by or issued to other parties that contain claims relating to the Company's products or processes, and such claims are ultimately determined to be valid, no assurance can be given that the Company would be able to obtain licenses to these patents at a reasonable cost, if at all, or to develop or obtain alternative technology.

The Company is aware that Celltech Limited ("Celltech") has been granted a patent by the EPO covering certain humanized antibodies, which PDL has opposed, and that Celltech has a pending application for a corresponding U.S. patent (the "U.S. Adair Patent Application"). Because U.S. patent applications are maintained in secrecy, the U.S. Adair Patent Application remains confidential. Accordingly, there can be no assurance that claims in such a patent or application would not cover any of the Company's SMART antibodies or be competitive with or conflict with claims in the Company's patents or patent applications. If the U.S. Adair Patent Application issues and if it is determined to be valid and to cover any of the Company's SMART antibodies, there can be no assurance that PDL would be able to obtain a license on commercially reasonable terms, if at all. If the claims of the U.S. Adair Patent Application conflict with claims in the Company's patents or patent applications, there can be no assurance that an interference would not be declared by the PTO, which could take several years to resolve and could involve significant expense to the Company. Also, such conflict could prevent issuance of additional patents to PDL relating to humanization of antibodies or result in a significant reduction in the scope or invalidation of the Company's patents, if issued. Moreover, uncertainty as to the validity or scope of patents issued to the Company relating generally to humanization of antibodies may limit the Company's ability to negotiate or collect royalties or to negotiate future collaborative research and development agreements based on these patents.

The Company has obtained a nonexclusive license under a patent held by Celltech (the "Boss Patent") relating to the Company's current process for producing SMART and human antibodies. An interference proceeding was declared in early 1991 by the PTO between the Boss Patent and a patent application filed by Genentech, Inc. ("Genentech") to which the Company does not have a license. The Company is not a party to this proceeding, and the timing and outcome of the proceeding or the scope of any patent that may be subsequently issued cannot be predicted. If the Genentech patent application were held to have priority over the Boss Patent, and if it were determined that the Company's processes and products were covered by a patent issuing from such patent application, the Company may be required to obtain a license under such patent or to significantly alter its processes or products. There can be no assurance that the Company would be able to successfully alter its processes or products to avoid infringing such patent or to obtain such a license on commercially reasonable terms, if at all, and the failure to do so could have a material adverse effect on the Company.

The Company is aware that Lonza Biologics, Inc. has a patent issued in Europe to which the Company does not have a license (although Roche has advised the Company that it has a license covering Zenapax), which may cover the process the Company uses to produce its potential products. If it were determined that the Company's processes were covered by such patent, the Company might be required to obtain a license under such patent or to significantly alter its processes or products, if necessary to manufacture or import its products in Europe. There can be no assurance that the Company would be able to successfully alter its processes or products to avoid infringing such patent or to obtain such a license on commercially reasonable terms, if at all, and the failure to do so could have a material adverse effect on the business and financial condition of the Company.

Also, Genentech has patents in the U.S. and Europe that relate to chimeric antibodies. Although the European patent was declared invalid by the EPO in the opposition process, Genentech has appealed that decision, thereby staying that decision. If Genentech were to assert that the Company's SMART antibodies infringe these patents, the Company might have to choose whether to seek a license or to challenge in court the validity of such patents or Genentech's claim of infringement. There can be no assurance that the Company would be successful in either obtaining such a license on commercially reasonable terms, if at all, or that it would be successful in such a challenge of the Genentech patents, and the failure to do so could have a material adverse effect on the business and financial condition of the Company.

In addition to seeking the protection of patents and licenses, the Company also relies upon trade secrets, know-how and continuing technological innovation which it seeks to protect, in part, by confidentiality agreements with employees, consultants, suppliers and licensees. There can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any breach or that the Company's trade secrets will not otherwise become known, independently developed or patented by competitors.

Dependence On Collaborative Partners. The Company has collaborative agreements with several pharmaceutical or other companies to develop, manufacture and market certain potential products, which include Zenapax, the most advanced product of the Company. The Company granted its collaborative partners certain exclusive rights to commercialize the products covered by these collaborative agreements. In some cases, the Company is relying on its collaborative partners to conduct clinical trials, to compile and analyze the data received from such trials, to obtain regulatory approvals and, if approved, to manufacture and market these licensed products. As a result, the Company often has little or no control over the development and marketing of these potential products and little or no opportunity to review clinical data prior to or following public announcement.

The Company's collaborative research agreements are generally terminable by its partners on short notice. Suspension or termination of certain of the Company's current collaborative research agreements could have a material adverse effect on the Company's operations and could significantly delay the development of the affected products. Continued funding and participation by collaborative partners will depend on the timely achievement of research and development objectives by the Company, the retention of key personnel performing work under those agreements and the successful achievement of clinical trial goals, none of which can be assured, as well as on each collaborative partner's own financial, competitive, marketing and strategic considerations. Such considerations include, among other things, the commitment of management of the collaborative partners to the continued development of the licensed products, the relationships among the individuals responsible for the implementation and maintenance of the collaborative efforts, the relative advantages of alternative products being marketed or developed by the collaborators or by others, including their relative patent and proprietary technology positions, and their ability to manufacture potential products successfully. In this regard, Boehringer Mannheim GmbH ("Boehringer Mannheim") recently terminated further development of and its license to OST 577, the most advanced product in development under the agreement with Boehringer Mannheim. In order to proceed with further clinical development of OST 577, the Company is dependent upon Boehringer Mannheim to transfer technical data, existing clinical supplies and other regulatory information related to OST 577 to the Company in a timely manner. can be no assurance that Boehringer Mannheim will cooperate with the Company in providing any of such data, supplies or information in a manner that will permit the Company to easily or rapidly proceed with further clinical development of OST 577. In addition, Boehringer Mannheim has invoked the dispute resolution provisions under its collaborative research agreement to address the reimbursement of up to \$2.0 million for the Phase II study of OST 577 for the treatment of chronic hepatitis B ("CHB") conducted by Boehringer Mannheim. The Company is unable to predict the outcome of this proceeding but in any event has estimated and recorded a liability with respect to this matter.

Further, in March 1998 Roche completed the acquisition of Corange, the parent company of Boehringer Mannheim. The Company has not been advised of any anticipated changes to the existing collaborative arrangement with the Company resulting from the completed acquisition. However, the Company expects that Roche will review the various drug development programs of the Company and Boehringer Mannheim, including those for the SMART[TM] Anti-L-Selectin Antibody and an antibody to an undisclosed cardiovascular target. The Company cannot predict the outcome or timing of such review or whether or not it will occur and in particular, whether Roche will decide to continue, modify or terminate the development program for these antibodies. In addition, Roche acquired 1,682,877 shares of the Company's common stock held by Corange which are no longer subject to contractual limitations on disposition.

The Company's ability to enter into new collaborations and the willingness of the Company's existing collaborators to continue development of the Company's potential products depends upon, among other things, the Company's patent position with respect to such products. In this regard, the Company has been issued patents by PTO and

EPO with claims that the Company believes, based on its survey of the scientific literature, cover most humanized antibodies. Eighteen notices of opposition to the European patent have been filed with the EPO, and either or both patents may be further challenged through administrative or judicial proceedings. The Company has applied for similar patents in Japan and other countries. The Company has entered into several collaborations related to both the humanization and patent licensing of certain antibodies whereby it granted licenses to its patent rights relating to such antibodies, and the Company anticipates entering into additional collaborations and patent licensing agreements partially as a result of the Company's patent and patent applications with respect to humanized antibodies. As a result, the inability of the Company to successfully defend the opposition proceeding before the EPO or, if necessary, to defend patents granted by the PTO or EPO or to successfully prosecute the corresponding patent applications in Japan or other countries could adversely affect the ability of the Company to collect royalties on existing licensed products such as Zenapax, and enter into additional collaborations, humanization or patent licensing agreements and could therefore have a material adverse effect on the Company's business or financial condition.

Absence Of Manufacturing Experience. Of the products developed by the Company which are currently in clinical development, Roche is responsible for manufacturing Zenapax. If further development occurs, the Company intends to manufacture OST 577, the SMART M195 Antibody, the SMART Anti-CD3 Antibody and PROTOVIR as well as some or all of its other products in preclinical development. The Company currently leases approximately 47,000 square feet housing its manufacturing facilities in Plymouth, Minnesota. The Company intends to continue to manufacture potential products for use in preclinical and clinical trials using this manufacturing facility in accordance with standard procedures that comply with current Good Manufacturing Practices ("cGMP") and appropriate regulatory standards. The manufacture of sufficient quantities of antibody products in accordance with such standards is an expensive, time-consuming and complex process and is subject to a number of risks that could result in delays. For example, the Company has experienced some difficulties in the past in manufacturing certain potential products on a consistent basis. Production interruptions, if they occur, could significantly delay clinical development of potential products, reduce third party or clinical researcher interest and support of proposed clinical trials, and possibly delay commercialization of such products and impair their competitive position, which would have a material adverse effect on the business and financial condition of the Company.

The Company has no experience in manufacturing commercial quantities of its potential products and currently does not have sufficient capacity to manufacture its potential products on a commercial scale. In order to obtain regulatory approvals and to create capacity to produce its products for commercial sale at an acceptable cost, the Company will need to improve and expand its existing manufacturing capabilities, including demonstration to the FDA of its ability to manufacture its products using controlled, reproducible processes. Accordingly, the Company is evaluating plans to improve and expand the capacity of its current manufacturing facility. The Company intends to partially implement such plans during 1998. Such plans, if fully implemented, would result in substantial costs to the Company and may require a suspension of manufacturing operations during construction. There can be no assurance that construction delays would not occur, and any such delays could impair the Company's ability to produce adequate supplies of its potential products for clinical use or commercial sale on a timely basis. Further, there can be no assurance that the Company will successfully improve and expand its manufacturing capability sufficiently to obtain necessary regulatory approvals and to produce adequate commercial supplies of its potential products on a timely basis. Failure to do so could delay commercialization of such products and impair their competitive position, which could have a material adverse effect on the business or financial condition of the Company.

Uncertainties Resulting From Manufacturing Changes. Manufacturing of antibodies for use as therapeutics in compliance with regulatory requirements is complex, time-consuming and expensive. When certain changes are made in the manufacturing process, it is necessary to demonstrate to the FDA that the changes have not caused the resulting drug material to differ significantly from the drug material previously produced, if results of prior preclinical studies and clinical trials performed using the previously produced drug material are to be relied upon in regulatory filings. Such changes could include, for example, changing the cell line used to produce the antibody, changing the fermentation or purification process or moving the production process to a new manufacturing plant. Depending upon the type and degree of differences between the newer and older drug material, various studies could be required to demonstrate that the newly produced drug material is sufficiently similar to the previously produced drug material, possibly requiring additional animal studies or human clinical trials. Manufacturing changes have been made or are likely to be made for the production of the Company's products currently in clinical development, in particular OST 577. There can be no assurance that such changes will not result in delays in development or regulatory approvals or, if occurring after regulatory approval, in reduction or interruption of commercial sales. In addition, manufacturing changes to its manufacturing facility may require the Company to shut down production for a period of time. There can be no assurance that the Company will be able to reinitiate

production in a timely manner, if at all, following such shutdown. Delays as a result of manufacturing changes or shutdown of the manufacturing facility could have an adverse effect on the competitive position of those products and could have a material adverse effect on the business and financial condition of the Company.

Dependence On Suppliers. The Company is dependent on outside vendors for the supply of raw materials used to produce its product candidates. The Company currently qualifies only one or a few vendors for its source of certain raw materials. Therefore, once a supplier's materials have been selected for use in the Company's manufacturing process, the supplier in effect becomes a sole or limited source of such raw materials to the Company due to the extensive regulatory compliance procedures governing changes in manufacturing processes. Although the Company believes it could qualify alternative suppliers, there can be no assurance that the Company would not experience a disruption in manufacturing if it experienced a disruption in supply from any of these sources. Any significant interruption in the supply of any of the raw materials currently obtained from such sources, or the time and expense necessary to transition a replacement supplier's product into the Company's manufacturing process, could disrupt the Company's operations and have a material adverse effect on the business and financial condition of the Company. A problem or suspected problem with the quality of raw materials supplied could result in a suspension of clinical trials, notification of patients treated with products or product candidates produced using such materials, potential product liability claims, a recall of products or product candidates produced using such materials, and an interruption of supplies, any of which could have a material adverse effect on the business or financial condition of the Company.

Competition; Rapid Technological Change. The Company's potential products are intended to address a wide variety of disease conditions, including autoimmune diseases, inflammatory conditions, cancers and viral infections. Competition with respect to these disease conditions is intense and is expected to increase. This competition involves, among other things, successful research and development efforts, obtaining appropriate regulatory approvals, establishing and defending intellectual property rights, successful product manufacturing, marketing, distribution, market and physician acceptance, patient compliance, price and potentially securing eligibility for reimbursement or payment for the use of the Company's product. The Company believes its most significant competitors may be fully integrated pharmaceutical companies with substantial expertise in research and development, manufacturing, testing, obtaining regulatory approvals, marketing and securing eligibility for reimbursement or payment, and substantially greater financial and other resources than the Company. Smaller companies also may prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical companies. Furthermore, academic institutions, governmental agencies and other public and private research organizations conduct research, seek patent protection, and establish collaborative arrangements for product development, clinical development and marketing. These companies and institutions also compete with the Company in recruiting and retaining highly qualified personnel. The biotechnology and pharmaceutical industries are subject to rapid and substantial technological change. The Company's competitors may develop and introduce other technologies or approaches to accomplishing the intended purposes of the Company's products which may render the Company's technologies and products noncompetitive and obsolete.

In addition to currently marketed competitive drugs, the Company is aware of potential products in research or development by its competitors that address all of the diseases being targeted by the Company. These and other products may compete directly with the potential products being developed by the Company. In this regard, the Company is aware that potential competitors are developing antibodies or other compounds for treating autoimmune diseases, inflammatory conditions, cancers and viral infections. In particular, a number of other companies have developed and will continue to develop human and humanized antibodies. In addition, protein design is being actively pursued at a number of academic and commercial organizations, and several companies have developed or may develop technologies that can compete with the Company's SMART and human antibody technologies. There can be no assurance that competitors will not succeed in more rapidly developing and marketing technologies and products that are more effective than the products being developed by the Company or that would render the Company's products or technology obsolete or noncompetitive. Further, there can be no assurance that the Company's collaborative partners will not independently develop products competitive with those licensed to such partners by the Company, thereby reducing the likelihood that the Company will receive revenues under its agreements with such partners.

Any potential product that the Company or its collaborative partners succeed in developing and obtaining regulatory approval for must then compete for market acceptance and market share. For certain of the Company's potential products, an important factor will be the timing of market introduction of competitive products. Accordingly, the relative speed with which the Company and its collaborative partners can develop products, complete the clinical testing and approval processes, and supply commercial quantities of the products to the market compared to competitive companies is expected to be an important determinant of market success. For example, with respect to the speed of development of

OST 577, the Company is aware that other drugs such as lamivudine from Glaxo Wellcome plc are in advanced clinical development or have been submitted for approval in certain jurisdictions for the treatment of CHB by competitive companies that have significantly greater experience and resources in developing antiviral products than the Company. Although the Company is considering clinical trials involving a combination of OST 577 and nucleoside analogs such as lamivudine, the availability of lamivudine or other drugs for the treatment of CHB could have a material adverse impact on the clinical development and commercial potential of OST 577

Other competitive factors include the capabilities of the Company's collaborative partners, product efficacy and safety, timing and scope of regulatory approval, product availability, marketing and sales capabilities, reimbursement coverage, the amount of clinical benefit of the Company's products relative to their cost, method of administration, price and patent protection. There can be no assurance that the Company's competitors will not develop more efficacious or more affordable products, or achieve earlier product development completion, patent protection, regulatory approval or product commercialization than the Company. The occurrence of any of these events by the Company's competitors could have a material adverse effect on the business and financial condition of the Company.

Dependence on Key Personnel. The Company's success is dependent to a significant degree on its key management personnel. To be successful, the Company will have to retain its qualified clinical, manufacturing, scientific and management personnel. The Company faces competition for personnel from other companies, academic institutions, government entities and other organizations. There can be no assurance that the Company will be successful in hiring or retaining qualified personnel, and its failure to do so could have a material adverse effect on the business and financial condition of the Company.

Potential Volatility Of Stock Price. The market for the Company's securities is volatile and investment in these securities involves substantial risk. The market prices for securities of biotechnology companies (including the Company) have been highly volatile, and the stock market from time to time has experienced significant price and volume fluctuations that may be unrelated to the operating performance of particular companies. Factors such as disappointing sales of approved products, approval or introduction of competing products, results of clinical trials, delays in manufacturing or clinical trial plans, fluctuations in the Company's operating results, disputes or disagreements with collaborative partners, market reaction to announcements by other biotechnology or pharmaceutical companies, announcements of technological innovations or new commercial therapeutic products by the Company or its competitors, initiation, termination or modification of agreements with collaborative partners, failures or unexpected delays in manufacturing or in obtaining regulatory approvals or FDA advisory panel recommendations, developments or disputes as to patent or other proprietary rights, loss of key personnel, litigation, public concern as to the safety of drugs developed by the Company, regulatory developments in either the U.S. or foreign countries (such as opinions, recommendations or statements by the FDA or FDA advisory panels, health care reform measures or proposals), market acceptance of products developed and marketed by the Company's collaborators, sales of the Company's common stock held by collaborative partners or insiders and general market conditions could result in the Company's failure to meet the expectations of securities analysts or investors. In such event, or in the event that adverse conditions prevail or are perceived to prevail with respect to the Company's business, the price of the Company's common stock would likely drop significantly. In the past, following significant drops in the price of a company's common stock, securities class action litigation has often been instituted against such a company. Such litigation against the Company could result in substantial costs and a diversion of management's attention and resources, which would have a material adverse effect on the Company's business and financial condition.

No Assurance Of Regulatory Approval; Government Regulation. The manufacturing, testing and marketing of the Company's products are subject to regulation by numerous governmental authorities in the U.S. and other countries based upon their pricing, safety and efficacy. In the U.S., pharmaceutical products are subject to rigorous FDA regulation. The federal Food, Drug and Cosmetic Act ("FD&C Act"), Public Health Service Act ("PHS Act") and other federal, state and local regulations govern the manufacture, testing, labeling, storage, record keeping, clinical and nonclinical studies to assess safety and efficacy, approval, advertising and promotion of pharmaceutical products. The process of developing and obtaining approval for a new pharmaceutical product within this regulatory framework requires a number of years and the expenditure of substantial resources. There can be no assurance that necessary approvals will be obtained on a timely basis, if at all.

In addition to the requirement for FDA approval of each pharmaceutical product, each pharmaceutical product manufacturing facility must be registered with, and approved by, the FDA. The manufacturing and quality control procedures must conform to cGMP in order to receive FDA approval. Pharmaceutical product manufacturing establishments are subject to inspections by the FDA and local authorities as well as inspections by authorities of other countries. To supply pharmaceutical products for use in the U.S., foreign manufacturing establishments must comply with cGMP and are subject to

periodic inspection by the FDA or by corresponding regulatory agencies in such countries under reciprocal agreements with the FDA. Moreover, pharmaceutical product manufacturing facilities may also be regulated by state, local and other authorities.

For marketing of pharmaceutical products outside the U.S., the Company is subject to foreign regulatory requirements governing marketing approval and pricing, and FDA and other U.S. export provisions should the pharmaceutical product be manufactured in the U.S. Requirements relating to the manufacturing, conduct of clinical trials, product licensing, promotion, pricing and reimbursement vary widely in different countries. Difficulties or unanticipated costs or price controls may be encountered by the Company or its licensees or marketing partners in their respective efforts to secure necessary governmental approvals to market the potential pharmaceutical products, which could delay or preclude the Company or its licensees or its marketing partners from marketing their potential pharmaceutical products.

The basic steps required by the FDA before a new pharmaceutical product for human use may be marketed in the U.S. include (i) preclinical laboratory and animal tests, (ii) submission to the FDA of an application for an Investigational New Drug ("IND") which must be reviewed by the FDA before clinical trials may begin, (iii) completion of adequate and well-controlled human clinical trials to establish the safety and efficacy of the pharmaceutical product for its intended use, (iv) for therapeutic monoclonal antibodies, submission of a Biologics License Application ("BLA") to the FDA, and (v) FDA approval of the BLA prior to any commercial sale or shipment of the pharmaceutical product.

The FDA reviews the results of the trials and may discontinue them at any time for safety reasons or other reasons if they are deemed to be non-compliant with FDA regulations. There can be no assurance that Phase I, II or III clinical trials will be completed successfully within any specific time period, if at all, with respect to any of the Company's or its collaborators' pharmaceutical products, each of which is subject to such testing requirements.

Both before and after approval is obtained, a pharmaceutical product, its manufacturer and the holder of the BLA for the pharmaceutical product are subject to comprehensive regulatory oversight. The FDA may deny a BLA if applicable regulatory criteria are not satisfied, require additional testing or information or require postmarketing testing and surveillance to monitor the safety or efficacy of the pharmaceutical product. Moreover, even if regulatory approval is granted, such approval may be subject to limitations on the indicated uses for which the pharmaceutical product may be marketed. Further, approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems with the pharmaceutical product occur following approval. Among the conditions for BLA approval is the requirement that the manufacturer of the pharmaceutical product comply with cGMP. In addition, under a BLA, the manufacturer continues to be subject to facility inspection and the applicant must assume responsibility for compliance with applicable pharmaceutical product and establishment standards. Violations of regulatory requirements at any stage may result in various adverse consequences, including FDA refusal to accept a license application, total or partial suspension of licensure, delay in approving or refusal to approve the pharmaceutical product or pending marketing approval applications, warning letters, fines, injunctions, withdrawal of the previously approved pharmaceutical product or marketing approvals and/or the imposition of criminal penalties against the manufacturer and/or BLA holders. In addition, later discovery of previously unknown problems may result in new restrictions on such pharmaceutical product, manufacturer and/or BLA holders, including withdrawal of the pharmaceutical product or marketing approvals and pharmaceutical product recalls or seizures.

No Sales And Marketing Experience. The Company intends to market and sell certain of its products, if successfully developed and approved, through a direct sales force in the U.S. and through sales and marketing partnership arrangements outside the U.S. However, the Company does not expect to establish a direct sales capability for at least the next few years. The Company has no history or experience in sales, marketing or distribution. To market its products directly, the Company must either establish a marketing group and direct sales force or obtain the assistance of another company. There can be no assurance that the Company will be able to establish sales and distribution capabilities or succeed in gaining market acceptance for its products. If the Company enters into co-promotion or other marketing or patent licensing arrangements with established pharmaceutical companies, the Company's revenues will be subject to the payment provisions of such arrangements and dependent on the efforts of third parties. There can be no assurance that the Company will be able to successfully establish a direct sales force or that its collaborators will effectively market any of the Company's potential products, and the inability of the Company or its collaborators to do so could have a material adverse effect on the business and financial condition of the Company.

Product Liability And Insurance. The Company faces an inherent business risk of exposure to product liability claims in the event that the use of products during research and development efforts or after commercialization results in adverse effects. There can be no assurance that the Company will avoid significant product liability exposure. The Company maintains product liability insurance for clinical trials. However, there can be no assurance that such coverage will be adequate

or that adequate insurance coverage for future clinical trials or commercial activities will be available at an acceptable cost, if at all, or that a product liability claim would not materially adversely affect the business or financial condition of the Company.

Future Requirements For Significant Additional Capital. The Company's operations to date have consumed substantial amounts of cash. Negative cash flow from operations is expected to increase beyond current levels over at least the next year as the Company expects to spend substantial funds in conducting clinical trials, to expand its research and development programs, to develop and expand its research, development and manufacturing capabilities and to defend or prosecute its patents and patent applications. The Company's future capital requirements will depend on numerous factors, including, among others, royalties from the sales of Zenapax by Roche; the progress of the Company's product candidates in clinical trials; the continued or additional support by collaborative partners or other third parties of research and clinical trials; enhancement of research and development programs; the time required to gain regulatory approvals; the resources the Company devotes to self-funded products, manufacturing methods and advanced technologies; the ability of the Company to obtain and retain funding from third parties under collaborative agreements; the development of internal marketing and sales capabilities; the demand for the Company's potential products, if and when approved; potential acquisitions of technology, product candidates or businesses by the Company; and the costs of defending or prosecuting any patent opposition or litigation necessary to protect the Company's proprietary technology. In order to develop and commercialize its potential products, the Company may need to raise substantial additional funds through equity or debt financings, collaborative arrangements, the use of sponsored research efforts or other means. No assurance can be given that such additional financing will be available on acceptable terms, if at all, and such financing may only be available on terms dilutive to existing stockholders. The inability of the Company to secure adequate funds on a timely basis could result in the delay or cancellation of programs that the Company might otherwise pursue and, in any event, could have a material adverse effect on the business and financial condition of the

Environmental Regulation. The Company is subject to federal, state and local laws and regulations governing the use, generation, manufacture, storage, discharge, handling and disposal of certain materials and wastes used in its operations, some of which are classified as "hazardous." There can be no assurance that the Company will not be required to incur significant costs to comply with environmental laws, the Occupational Safety and Health Act, and state, local and foreign counterparts to such laws, rules and regulations as its manufacturing and research activities are increased or that the operations, business and future profitability of the Company will not be adversely affected by current or future laws, rules and regulations. The risk of accidental contamination or injury from hazardous materials cannot be eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. In any event, the cost of defending claims arising from such contamination or injury could be substantial. In addition, the Company cannot predict the extent of the adverse effect on its business or the financial and other costs that might result from any new government requirements arising out of future legislative, administrative or judicial actions.

Uncertainty Related To Health Care Industry. The health care industry is subject to changing political, economic and regulatory influences that may significantly affect the purchasing practices and pricing of human therapeutics. Cost containment measures, whether instituted by health care providers or enacted as a result of government health administration regulators or new regulations, such as pricing limitations or formulary eligibility for dispensation by medical providers, could result in greater selectivity in the availability of treatments. Such selectivity could have an adverse effect on the Company's ability to sell its products and there can be no assurance that adequate third-party coverage will be available for the Company to maintain price levels sufficient to generate an appropriate return on its investment in product development. Third-party payors are increasingly focusing on the cost-benefit profile of alternative therapies and prescription drugs and challenging the prices charged for such products and services. Also, the trend towards managed health care in the U.S. and the concurrent growth of organizations such as health maintenance organizations, which could control or significantly influence the purchase of health care services and products, as well as legislative proposals to reform health care or reduce government insurance programs, may all result in lower prices or reduced markets for the Company's products. The cost containment measures that health care providers and payors are instituting and the effect of any health care reform could adversely affect the Company's ability to sell its products and may have a material adverse effect on the Company. To date, the Company has conducted limited marketing studies on certain of its potential products and has not undertaken any pharmacoeconomic analysis with respect to its products under development. The cost containment measures and reforms that government institutions and third party payors are considering instituting could result in significant and unpredictable changes to the marketing, pricing and reimbursement practices of biopharmaceutical companies such as the Company. The adoption of any such measures or reforms could have a material adverse effect on the business and financial condition of the Company.

Conduct of Certain Activities in California. maintains its headquarters and research and development facilities in northern California. California has historically been the site of various natural disasters, including earthquakes, seismic tremors, unstable geologic fault lines, floods and mudslides. The occurrence of a natural disaster of significant magnitude in northern California could seriously impair the operations of the Company for an extended period of time as well as result in the loss of data and information essential to the continuation of the Company's business. Although the Company maintains duplicate copies of certain of its data and information on its information systems at its Minnesota facility, there can be no assurance that such natural disaster would not significantly disrupt the operations of the Company. Moreover, there can be no assurance that the Company's employees or other suitable personnel would be available to resume the operations of the Company in California in a timely manner, and the cost of resuming its operations and responding to such disaster could have a material adverse effect on the business and financial condition of the Company.

ITEM 2. PROPERTIES

The Company leases approximately 43,000 square feet of laboratory and office space in Mountain View, California. The Company's lease will terminate on December 31, 2000. The Company has also leased an additional 10,000 square feet of office space located adjacent to its current facility in Mountain View, California through May 31, 1998, and has negotiated an extension of this lease through September 30, 1998. In July 1997, the Company entered into a lease agreement for a term of approximately 12 years to lease approximately 90,000 square feet of research and development and general office space in Fremont, California. The Company plans to relocate its California headquarters to this facility during the third or fourth quarter of 1998.

The Company also leases approximately 47,000 square feet of manufacturing, laboratory and office space in Plymouth, Minnesota. The Company's lease will terminate on February 29, 2004, subject to the Company's options to extend the lease for two additional five year terms. Although these facilities currently leased by the Company are sufficient for its present manufacturing operations, the Company believes that it may have to obtain additional manufacturing space in the future and may lease or acquire additional space as required.

The Company owns substantially all of the equipment used in its facilities. See Note 4 to the financial statements.

ITEM 3. LEGAL PROCEEDINGS

The Company is involved in administrative opposition proceedings being conducted by the European Patent Office with respect to its European patent relating to humanized antibodies. Eighteen oppositions were filed with respect to the issuance of the patent to the Company in January 1996. The opposition briefs argue that the patent was incorrectly granted and should be withdrawn or limited. See "Business - - Patents and Proprietary Technology" and "Risk Factors -- Uncertainty of Patents and Proprietary Technology; Opposition Proceedings." Other than such administrative proceeding, the Company is not a party to any material administrative proceedings. The Company believes that the outcome of these opposition proceedings will not have a material adverse effect on the financial position, results of operations or the cash flows of the Company. However, if such outcome were to be unfavorable, the Company's ability to collect royalties on licensed products and to license its patents relating to humanized antibodies may be materially adversely affected which could in the future have a material adverse effect on the Company's results of operations, cash flows and financial position.

In 1997, Boehringer Mannheim invoked the dispute resolution provisions under its collaborative research agreement with the Company to address the reimbursement of up to \$2.0 million for the terminated Phase II study of OST 577 for the treatment of chronic active hepatitis B initiated by Boehringer Mannheim as well as certain legal expenses related to Boehringer Mannheim's participation in the Company's public offering in early 1997. The collaborative research agreement with Boehringer Mannheim provides for reimbursement from PDL of costs and expenses of up to \$2.0 million for a Phase II study of OST 577 in the event certain conditions are met with respect to that study. In March 1998, Roche acquired Boehringer Mannheim. The Company is unable to predict the outcome of this proceeding but in any event has estimated and recorded a liability with respect to this matter. See "Risk Factors." Other than such legal proceeding, the Company is not a party to any material legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITYHOLDERS

Not applicable.

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

MARKET INFORMATION AND DIVIDEND POLICY (\$)

1996	High	Low
First Quarter	28.38	20.38
Second Quarter	30.00	22.00
Third Quarter	27.25	12.00
Fourth Quarter	38.38	21.75
1997	High	Low
First Quarter	40.13	31.75
Second Quarter	35.88	24.38
Third Quarter	43.50	26.50
Fourth Quarter	51.50	35.88

The Company's Common Stock trades on the Nasdaq National Market under the symbol "PDLI." Prices indicated above are the high and low sales prices as reported by the Nasdaq National Market System for the periods indicated. The Company has never paid any cash dividends on its capital stock and does not anticipate paying any cash dividends in the foreseeable future.

As of December 31, 1997, the approximate number of common stockholders of record was 300. The market for the Company's securities is volatile. See "Risk Factors."

In October 1997, the Company entered into a Stock Purchase Agreement with Toagosei Co., Ltd. ("Toagosei") pursuant to which the Company sold 44,568 shares of newly issued Common Stock at a price per share of \$44.875. The Company offered and sold the shares to Toagosei, a sophisticated investor who purchased such shares for investment purposes, in a transaction not involving a public offering pursuant to the exemption from registration provisions of Section 4(2) of the Securities Act of 1933, as amended.

ITEM 6. SELECTED FINANCIAL DATA

(In thousands, except per share and number of employees data)

	Years Ended December 31,				
	1997	1996	1995	1994	1993
STATEMENTS OF OPERATIONS DATA: Revenues: Research and development revenue under collaborative agreements-					
related parties (1) Research and development	\$	\$11,000	\$10,333	\$9,333	\$14,233
	9,118		6,205	3,349	2,111
Total revenues		22,600			
Costs and expenses: Research and development Purchase of in-process	·	•	· ·	·	•
technology General and administrative Special charge (2) Interest expense	6,629 11,887		1	7	25
Total costs and expenses		34,396		20,425	22,732
Net loss	(\$23,875)	(\$11,796) ======	(\$8,354)	(\$5,216)	(\$5,932)
Net loss per share (3)	(\$1.35)	(\$0.76)	(\$0.54)	(\$0.37)	(\$0.47)
Shares used in computation of net loss per share	17,649		15,343	14,060	12,747
		[December 31	L,	
	1997	1996	1995	1994	1993

Cash, cash equivalents and					
investments	\$163,655	\$99,667	\$107,065	\$113,245	\$72,732
Working capital	66,490	74,221	43,522	95,450	29,843
Total assets	175,026	110,331	116,412	121,054	80,294
Capital lease obligations,					
less current portion					25
Accumulated deficit	(59,382)	(35,507)	(23,711)	(15, 357)	(10, 141)
Total stockholders' equity	168,468	105,112	112,856	117,783	77,921
Number of employees	217	208	181	145	112

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- (1) Certain amounts in the category "Research and development revenue under collaborative agreements-related parties" for the years ended December 31, 1994-96 have been reclassified under the category "Research and development revenue-other" based on a determination that one of the Company's collaborative partners was not a related party during these periods. The total research and development revenue for these periods is unchanged.
- (2) Represents a non-cash special charge of approximately \$11.9 million related to the extension of the term of all outstanding stock options held by employees, officers, directors and consultants to the Company that were granted prior to February 1995, with the single exception of stock options granted to one non-employee director. The extension conforms the term of previously granted stock options, which was six years, to those granted since February 1995, ten years.
- (3) For a description of the computation of net loss per share, see Note 1 to the Financial Statements.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Annual Report contains forward-looking statements which involve risks and uncertainties. The Company's actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such a difference include, but are not limited to those discussed in "Risk Factors" as well as those discussed elsewhere in this document.

OVERVIEW

Since the Company's founding in 1986, a primary focus of its operations has been research and development. Achievement of successful research and development and commercialization of products derived from such efforts is subject to high levels of risk and significant resource commitments. The Company has a history of operating losses and expects to incur substantial additional losses over at least the next few years, as it continues to develop its proprietary products, devote significant resources to preclinical studies, clinical trials, and manufacturing and to defend its patents and other proprietary rights. The Company's revenues to date have consisted principally of research and development funding, licensing and signing fees and milestone payments from pharmaceutical, chemical and biotechnology companies under collaborative research and development and patent licensing agreements. These revenues may vary considerably from reporting period to reporting period and revenues in any period may not be predictive of revenues in any subsequent period, and variations may be significant depending on the terms of the particular agreements. In 1998, the Company began receiving royalties from sales of Zenapax[R] by Hoffmann-La Roche Inc., including its affiliates ("Roche"). The Company is dependent upon the further development, regulatory and marketing efforts of Roche with respect to Zenapax and there can be no assurance that Roche's further development, regulatory and marketing efforts will be successful, including, without limitation, if and when regulatory approvals in various countries may be obtained and whether or how quickly Zenapax might be adopted by the medical community. The Company began to receive royalties based on revenue from sales of Zenapax by Roche in 1998, with royalties based on U.S. sales paid to the Company on a quarterly basis and international sales on a semi-annual basis. The Company intends to recognize royalty revenues when royalty reports are received from Roche and the Company's other collaborative partners. This method of recognizing royalty revenues from the Company's licensees, taken together with the unpredictable timing of payments of non-recurring licensing and signing fees and milestones under new and existing collaborative research and development and patent licensing agreements, is likely to result in significant fluctuations in revenues in quarterly and yearly periods.

Although the Company anticipates entering into new collaborations and patent licensing agreements from time to time, the Company presently does not anticipate realizing non-royalty revenue from its new and proposed collaborations and agreements at levels commensurate with the non-royalty revenue historically recognized under its older collaborations. Moreover, as the Company expands its business activities, advancing potential products in clinical development, the Company anticipates that its operating expenses will generally continue to increase significantly as the Company dedicates more resources to its research and development, manufacturing, preclinical and clinical activity, and administrative and patent activities. Accordingly, in the absence of substantial revenues from new corporate collaborations or patent licensing agreements, significant royalties on sales of Zenapax

and other products licensed under the Company's intellectual property rights, or other sources, the Company expects to incur substantial operating losses in the foreseeable future as certain of its earlier stage potential products move into later stage clinical development, as additional potential products are selected as clinical candidates for further development, as the Company invests in additional facilities or manufacturing capacity, as the Company defends or prosecutes its patents and patent applications and as the Company invests in research or acquires additional technologies or businesses.

Contract revenues from research and development are recorded as earned based on the performance requirements of the contracts. Revenues from achievement of milestone events are recognized when the funding party agrees that the scientific or clinical results stipulated in the agreement have been met. Deferred revenue arises principally due to timing of cash payments received under research and development contracts.

The Company's collaborative, humanization and patent licensing agreements with third parties provide for the payment of royalties to the Company based on net sales of the licensed product under the agreement. The agreements generally provide for royalty reports to the Company following completion of each calendar quarter or semi-annual period and royalty revenue is recognized when royalty reports are received from the third party.

RESULTS OF OPERATIONS

Years ended December 31, 1997, 1996 and 1995

The Company's total revenues were \$20.3 million in 1997 as compared to \$22.6 million in 1996 and \$17.6 million in 1995. Total research and development revenues represented \$11.1 million, \$16.5 million and \$11.4 million of total revenues in 1997, 1996 and 1995, respectively. Interest and other income were \$9.1 million in 1997, \$6.1 million in 1996, and \$6.2 million in 1995.

The decrease in total research and development revenues in 1997 from the prior years was primarily attributable to expiration of reimbursement funding under an agreement with Boehringer Mannheim which funding arrangement expired as scheduled in October 1996. The Company recognized \$11.0 million in licensing and signing fees and milestone payments in 1997 compared to \$6.5 million and \$1.0 million in 1996 and 1995, respectively. Of the amounts expended by the Company for research and development, \$0.1 million in 1997, \$10.0 million in 1996 and \$10.4 million in 1995 represented third-party funded research and development activities (not including licensing and signing fees, milestone payments and product sales).

Interest and other income increased to \$9.1 million in 1997 from \$6.1 and \$6.2 million in 1996 and 1995, respectively. This increase is primarily attributable to the increased interest earned on the Company's investment balances as a result of the Company's follow-on public offering, which was completed during the first quarter of 1997. Interest and other income of \$6.1 million in 1996 was comparable to \$6.2 million in 1995.

Total costs and expenses increased to \$44.1 million in 1997 from \$34.4 million in 1996 and \$26.0 million in 1995. The increase in costs and expenses in 1997 compared to 1996 and 1995 was due primarily to a non-cash special charge of \$11.9 million associated with the extension of the term of certain stock options that were granted prior to 1995. The special charge is expected to be non-recurring and conformed the term of previously granted stock options, which was six years, to those granted since February 1995, ten years. Exercise prices of the stock options were not altered. Without the non-cash special charge, total costs and expenses in 1997 were \$32.2 million, a decrease from 1996, due principally to a decrease in research and development expenses.

Research and development expenses in 1997 decreased to \$25.6 million from \$28.8 million in 1996 and \$20.8 million in 1995. The decrease in 1997 costs and expenses as compared to 1996 was primarily due to reduced clinical trial costs resulting from the termination of a clinical trial in third quarter of 1996 involving PROTOVIR[TM], a product candidate. Excluding clinical trial costs for PROTOVIR, the Company's 1997 research and development expenses increased as a result of the addition of staff, the initiation and continuation of clinical trials, costs of conducting preclinical tests, expansion of pharmaceutical development capabilities including support for both clinical development and manufacturing process development, and higher costs in the expanded operation of the manufacturing facility.

General and administrative expenses for 1997 increased to \$6.6 million from \$5.6 million in 1996 and \$5.2 million in 1995. These increases were primarily the result of increased staffing and associated expenses necessary to manage and support the Company's expanding operations.

LIQUIDITY AND CAPITAL RESOURCES

To date the Company has financed its operations primarily through public and private placements of equity securities, research and development revenues and interest income on invested capital. At December 31, 1997, the Company had cash, cash equivalents and investments in the aggregate

of \$163.7 million, compared to \$99.7 million at December 31, 1996 and \$107.1 million at December 31, 1995. This increase in cash resources in 1997 primarily reflects the completion of a public offering of 2.275 million shares of the Company's Common Stock in the first quarter of 1997. The net proceeds of this offering to the Company were approximately \$68.2 million.

In 1997, Boehringer Mannheim GmbH ("Boehringer Mannheim") invoked the dispute resolution provisions under its collaborative research agreement with the Company to address the reimbursement of up to \$2.0 million for the Phase II study of OST 577 for the treatment of chronic hepatitis B ("CHB") then being conducted by Boehringer Mannheim as well as certain legal expenses related to Boehringer Mannheim's participation in the Company's public offering in the first quarter of 1997. In March 1998, Roche acquired Boehringer Mannheim. The Company is unable to predict the outcome of this proceeding but in any event has estimated and recorded a liability with respect to this matter. The collaborative research agreement with Boehringer Mannheim provides for reimbursement from PDL of costs and expenses of up to \$2.0 million for a Phase II study of OST 577 in the event certain conditions are met with respect to that study.

In July 1997, the Company entered into a lease agreement for a term of approximately 12 years to lease approximately 90,000 square feet of research and development and general office space in Fremont, California. The Company plans to relocate its California headquarters to this facility during the third or fourth quarter of 1998 and expects to invest approximately \$13 million related to the construction of these new headquarters, which improvements will include expanded laboratory and development facilities.

As set forth in the Statements of Cash Flows, net cash used in operating activities was approximately \$7.6 million for the year ended December 31, 1997 compared to approximately \$7.0 million in 1996 and \$7.1 million in 1995. The increase in 1997 was primarily due to the Company's continued investment in research and development, the addition of staff, initiation and continuation of clinical trials, costs of conducting preclinical tests, expansion of pharmaceutical development capabilities including support for both clinical development and manufacturing process development, and costs of the expanded operation of the manufacturing facility.

As set forth in the Statements of Cash Flows, net cash used in investing activities for the year ended December 31, 1997 was \$72.1 million compared to net cash provided by investing activities of \$11.8 million in 1996 and \$4.8 million in 1995. The increase in 1997 was primarily the result of increased purchases of short- and long-term investments from the proceeds of the Company's public offering the first quarter of 1997.

As set forth in the Statements of Cash Flows, net cash provided by financing activities for the years ended December 31, 1997 was \$74.9 million compared to \$4.7 million in 1996 and \$1.5 million in 1995. The change in 1997 was primarily the result of the completion of a public offering of 2.275 million shares of the Company's common stock in the first quarter of 1997 and the exercise of outstanding stock options.

The Company's future capital requirements will depend on numerous factors, including, among others, royalties from Roche's marketing of Zenapax; the ability of the Company to enter into additional patent licensing arrangements; the progress of the Company's product candidates in clinical trials; the ability of the Company's collaborative partners to obtain regulatory approval and successfully manufacture and market the Company's products; the continued or additional support by collaborative partners or other third parties of research and clinical trials; enhancement of existing and investment in new research and development programs; the time required to gain regulatory approvals; the resources the Company devotes to self-funded products, manufacturing methods and advanced technologies; the ability of the Company to obtain and retain funding from third parties under collaborative agreements; the development of internal marketing and sales capabilities; the demand for the Company's potential products, if and when approved; potential acquisitions of technology, product candidates or businesses by the Company; and the costs of defending or prosecuting any patent opposition or litigation necessary to protect the Company's proprietary technology. In order to develop and commercialize its potential products the Company may need to raise substantial additional funds through equity or debt financings, collaborative arrangements, the use of sponsored research efforts or other means. No assurance can be given that such additional financing will be available on acceptable terms, if at all, and such financing may only be available on terms dilutive to existing The Company believes that existing capital resources will stockholders. be adequate to satisfy its capital needs through at least 2000.

YEAR 2000 COMPLIANCE

The Company has conducted a preliminary review of its internal operations and inquired of certain of its key vendors to assess the appropriate resource commitments and contingency plans that may be required to maintain the Company's computer systems after December 31, 1999. Based on this preliminary review, the Company does not believe that modifications to existing computer systems to provide for proper functioning with respect to dates in the year 2000 and thereafter will pose significant operational problems or require significant financial

commitments on behalf of the Company. This belief is based on a preliminary review and certain related estimates and assumptions of future events such as the timely completion or availability of upgrades or modifications to the Company's software and computer systems as specified by its vendors, and the continued availability of certain resources and internal capabilities, including without limitation the employees of the Company responsible for the information systems and manufacturing software used in the Company's operations. There can be no assurance that a complete review of the Company's operations will not identify additional efforts that may have a material impact on the future operating results or financial condition of the Company, that management's estimates can be achieved, that certain software used by the Company will be upgraded or modified and made available to the Company in a timely manner, that management's assumptions regarding the further growth of the Company are complete or accurate or that the required resources and capabilities of the Company to address this potential issue will continue to be available in a timely manner. Moreover, the Company's operations and development program are dependent upon certain third party vendors who perform services for the Company, as well as certain agencies and organizations such as the U.S. Food and Drug Administration and foreign regulatory authorities. These third party vendors, agencies and authorities may have difficulties or problems in timely upgrading or modifying their internal operations and computer systems to address the year 2000 issue and there can be no assurance that the systems of these vendors, agencies and authorities will be timely upgraded or modified in a manner that would not adversely affect the Company's business.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

PROTEIN DESIGN LABS, INC.
BALANCE SHEETS
(In thousands, except par value per share)

December 31,

	1997	1996	
ASSETS Current assets: Cash and cash equivalents Short-term investments Other current assets	\$9,266 63,003 779	\$14,141 64,050 1,250	
Total current assets Property and equipment, net Long-term investments Other assets	73,048 9,996 91,386 596	79,441 8,590 21,475 825	
	\$175,026	\$110,331	
	=========	=========	
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities:			
Accounts payable	\$475	\$1,029	
Accrued compensation	833	635	
Other accrued liabilities	3,646	3,555	
Deferred revenue	1604		

Total current liabilities Commitments	6,558	5,219
Stockholders' equity: Preferred stock, par value \$0.01 per share, 10,000 shares authorized; no shares issued and outstanding Common stock, par value \$0.01 per share, 40,000 shares authorized; 18,348 and 15,759 issued and outstanding at December 31, 1997 and December 31, 1996,		
respectively	183	158
Additional paid-in capital	227,093	,
Accumulated deficit	(59,382)	
Unrealized gain on investments	574	133
Total stockholders' equity	168,468	105,112
	\$175,026	\$110,331

See accompanying notes

PROTEIN DESIGN LABS, INC. STATEMENTS OF OPERATIONS (In thousands, except net loss per share data)

	Years Ended December 31,					
	1997	1996	1995			
Revenues: Research and development revenue under collaborative agreements- related parties Research and development revenue-	\$	\$11,000	\$10,333			
other Interest and other income	11,137 9,118	5,500 6,100				
Total revenues	20,255	22,600	17,613			
Costs and expenses: Research and development General and administrative Special charge Interest expense	25,614 6,629 11,887	,	20,803 5,163 1			
Total costs and expenses	44,130	34,396	25,967			
Net loss	(\$23,875)	(\$11,796)	(\$8,354)			
Net loss per share	(\$1.35)	(\$0.76)	(\$0.54)			
Shares used in computation of net loss per share	17,649 ======	15,604 ======	15,343 =======			

See accompanying notes

PROTEIN DESIGN LABS, INC. STATEMENTS OF STOCKHOLDERS' EQUITY (In thousands, except per share and shares of common stock data)

	Common Stock		Common Stock Additional Paid-in Accumulated		Deferred	Unrealized Gain (loss) on	Total Shareholders'
	Shares	Amount	Capital	Deficit	Compensation		Equity
Balance at December 31, 1994 Issuance of common stock to employees, consultants and	15,247,916	\$152	\$134,132	(\$15,357)	(\$94)	(\$1,050)	\$117,783
outside directors for cash Amortization of deferred	157,845	2	1,484				1,486
compensation Change in unrealized gain					94		94
(loss) on investments Net loss				(8,354)		1,846 	1,846 (8,354)
Balance at December 31, 1995 Issuance of common stock to employees, consultants and	15,405,761	154	135,616	(23,711)		796	112,855
outside directors for cash Change in unrealized gain	353,328	4	4,712				4,716
(loss) on investments Net loss	 			(11,796)	 	(663) 	(663) (11,796)
Balance at December 31, 1996	15,759,089	158	140,328	(35,507)		133	105,112
Follow-on public offering of common stock at \$32.00 per share (net underwriters disc of \$4,004 and offering expen							
of \$665) Issuance of common stock to	2,275,000	22	68,109				68,131
investor at \$44.875 per shar Issuance of common stock to employees, consultants and	re 44,568		2,000				2,000
outside directors for cash Extension of term of certain	269,320	3	4,769				4,772
stock options Change in unrealized gain			11,887				11,887
(loss) on investments Net loss				(23,875)		441 	441 (23,875)
Balance at December 31, 1997	18,347,977	\$183 	\$227,093	(\$59,382)	\$	\$574	\$168,468

See accompanying notes

PROTEIN DESIGN LABS, INC. STATEMENTS OF CASH FLOWS INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS (In thousands)

	Years Ended December 31,		
	1997	1996	1995
Cash flows from operating activities: Net loss Adjustments to reconcile net loss to net cash used in operating activities	(\$23,875)	(\$11,796)	(\$8,354)
Depreciation and amortization Other Special charge Changes in assets and liabilities:	3,244 (706) 11,887		2,533 (1,924)
Other current assets Accounts payable Accrued liabilities	470 (554) 289 1,604	2,272	377 (120) 339 92
Total adjustments	16,234	4,771	1,297
Net cash used in operating activities	(7,641)	(7,025)	(7,057)
Cash flows from investing activities: Purchases of short- and long-term investments Maturities of short- and long-term investments Proceeds from sales of short and long term investments	249,681	39,900	46,900
Capital expenditures (Increase) decrease in other assets	(4,565) 229	(3,699) 22	(3,586) (659)
Net cash provided by (used in) investing activiti			
Cash flows from financing activities: Principal payments on capital lease obligations Proceeds from issuance of capital stock	 74,903	 4,715	(25) 1,486
Net cash provided by financing activities	74,903	4,715	1,461
Net increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of year		9,455	(754)
Cash and cash equivalents at end of year	\$9,266	\$14,141	\$4,686
Supplemental disclosure of cash flow information Interest paid	\$ ===================================	\$	\$1

See accompanying notes

PROTEIN DESIGN LABS, INC. NOTES TO FINANCIAL STATEMENTS December 31, 1997

1. Summary of Significant Accounting Policies

Organization and Business

Since the Company's founding in 1986, a primary focus of its operations has been research and development. Achievement of successful research and development and commercialization of products derived from such efforts is subject to high levels of risk and significant resource commitments. The Company has a history of operating losses and expects to incur substantial additional expenses over at least the next few years, as it continues to develop its proprietary products, devote significant resources to preclinical studies, clinical trials, and manufacturing and to defend its patents and other proprietary rights. The Company's revenues to date have consisted principally of research and development funding, licensing and signing fees and milestone payments from pharmaceutical companies under collaborative research and development and patent licensing agreements. These revenues may vary considerably quarter to quarter and from year to year and revenues in any period may not be predictive of revenues in any subsequent period, and variations may be significant depending on the terms of the particular agreements. In 1998, Company began receiving royalties from sales of Zenapax by Hoffmann-La Roche Inc., including its affiliates ("Roche"). The Company is dependent upon the further development, regulatory and marketing efforts of Roche with respect to Zenapax and there can be no assurance that Roche's further development, regulatory and marketing efforts will be successful, including, without limitation, if and when regulatory approvals in various countries may be obtained and whether or how quickly Zenapax might be adopted by the medical community. In addition, the Company intends to recognize royalty revenues when royalty reports are received from Roche and the Company's other collaborative partners. This method of recognizing royalty revenues from the Company's licensees, taken together with the unpredictable timing of payments of non-recurring licensing and signing fees and milestones under new and existing collaborative research and development and patent licensing agreements, may result in significant fluctuations in revenues in quarterly and yearly periods.

Although the Company anticipates entering into new collaborative, humanization and patent licensing agreements from time to time, the Company presently does not anticipate realizing non-royalty revenue from its new and proposed collaborations and agreements at levels commensurate with the non-royalty revenue historically recognized under its older collaborations. Moreover, the Company anticipates that its operating expenses will continue to increase significantly as the Company increases its research and development, manufacturing, preclinical and clinical activity, and administrative and patent activities. Accordingly, in the absence of substantial revenues from new corporate collaborations or patent licensing agreements, significant royalties on sales of Zenapax and other products licensed under the Company's intellectual property rights, or other sources, the Company expects to incur substantial operating losses in the foreseeable future as certain of its earlier stage potential products move into later stage clinical development, as additional potential products are selected as clinical candidates for further development, as the Company invests in additional facilities or manufacturing capacity, as the Company defends or prosecutes its patents and patent applications and as the Company invests in research or acquires additional technologies or businesses.

Cash Equivalents, Investments and Concentration of Credit Risk

The Company considers all highly liquid investments purchased with a maturity of three months or less at the date of acquisition to be cash equivalents. The "Other" adjustments line item in the Statements of Cash Flows represents the accretion of the book value of certain debt securities. The Company places its cash and short-term and long-term investments with high-credit-quality financial institutions and in securities of the U.S. government and U.S. government agencies and, by policy, limits the amount of credit exposure in any one financial instrument. To date, the Company has not experienced credit losses on investments in these instruments.

Revenue Recognition

Contract revenues from research and development are recorded as earned based on the performance requirements of the contracts. Revenues from achievement of milestone events are recognized when the funding party agrees that the scientific or clinical results stipulated in the

agreement have been met. Deferred revenue arises principally due to timing of cash payments received under research and development contracts.

The Company's collaborative, humanization and patent licensing agreements with third parties provide for the payment of royalties to the Company based on net sales of the licensed product under the agreement. The agreements generally provide for royalty payments to the Company following completion of each calendar quarter or semi-annual period and royalty revenue is recognized when royalty reports are received from the third party.

Certain amounts in the category "Research and development revenue under collaborative agreements-related parties" for the years ended December 31, 1994-96 have been reclassified under the category "Research and development revenue-other" based on a determination that one of the Company's collaborative partners was not a related party during these periods. The total research and development revenue for these periods is unchanged.

New Accounting Standards

In 1997, the Financial Accounting Standards Board issued Statement No. 128, "Earnings Per Share" ("FAS 128"). Effective December 31, 1997, the Company adopted FAS 128. FAS 128 requires the presentation of basic earnings (loss) per share and diluted earnings (loss) per share, if more dilutive, for all periods presented. In accordance with FAS 128, net loss per share has been computed using the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share has not been presented as, due to the Company's net loss position, it is antidilutive. Had the Company been in a net income position, diluted earnings per share for 1997, 1996, and 1995 would have included an additional 1,052,000, 964,000, and 579,000 shares, respectively, related to the Company's outstanding stock options. The Company's previously reported net loss per share amounts conformed to FAS 128 and, accordingly, its adoption has no effect on these financial statements.

Management Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the use of management's estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. For example, the Company has a policy of recording expenses for clinical trials based upon pro rating estimated total costs of a clinical trial over the estimated length of the clinical trial and the number of patients anticipated to be enrolled in the trial. Expenses related to each patient are recognized ratably beginning upon entry into the trial and over the course of the trial. In the event of early termination of a clinical trial, management accrues an amount based on its estimate of the remaining non-cancellable obligations associated with the winding down of the clinical trial. These estimates and assumptions could differ significantly from the amounts which may actually be realized.

In 1997, Boehringer Mannheim GmbH ("Boehringer Mannheim") invoked the dispute resolution provisions under its collaborative research agreement to address the reimbursement of up to \$2.0 million for the Phase II study of OST 577 for the treatment of chronic hepatitis B ("CHB") then being conducted by Boehringer Mannheim as well as certain legal expenses related to Boehringer Mannheim's participation in the Company's public offering in the first quarter of 1997. In March 1998, Roche acquired Boehringer Mannheim. The Company is unable to predict the outcome of this proceeding but in any event has estimated and recorded a liability with respect to this matter. The collaborative research agreement with Boehringer Mannheim provides for reimbursement from PDL of costs and expenses of up to \$2.0 million for a Phase II study of OST 577 in the event certain conditions are met with respect to that study.

Property and Equipment

Property and equipment are stated at cost less accumulated straight-line depreciation and amortization and consist of the following:

(In thousands)

	December 31,		
	1997	1996	
Laboratory and manufacturing equipment Office equipment Furniture and fixtures	\$12,789 3,608 5,927	\$10,171 3,238 4,351	
Less accumulated depreciation and amortization	22,324 (12,328)	17,760 (9,170)	
	\$9,996 ======	\$8,590	

Laboratory, manufacturing, office equipment and furniture and fixtures are depreciated over the estimated useful lives of the assets, generally three to five years.

Roche

Roche and the Company have entered into a product licensing agreement for Zenapax, a humanized antibody created by the Company. Since December 31, 1994, amounts received as research and development funding and milestone payments under the agreement are not material. Related costs for research and development under this arrangement approximated the related revenues and are included in research and development expenses in the accompanying financial statements. The research and development funding arrangement expired in January 1995. The Company will receive further payments if additional milestones are achieved and royalty payments to the Company on net sales of Zenapax. Royalties payable to the Company are subject to certain offsets for milestones and third party royalties paid by Roche under the agreement. The product licensing agreement may be terminated by Roche upon 90 days notice, in which event rights licensed to Roche will revert to the Company.

Corange/Boehringer Mannheim

In October 1993, Corange International Limited ("Corange") entered into a strategic alliance with the Company, which alliance included a joint development, marketing and licensing agreement, as amended in 1994, 1995 and 1996, including an assignment of all rights and obligations of Corange to Boehringer Mannheim GmbH ("Boehringer Mannheim") (the "Agreement"). The Company recognized research and development funding under the Agreement of approximately \$10.0 million and \$10.3 million in 1996 and 1995, respectively. Related costs under the Agreement approximated the related research and development funding revenue and are included in research and development expenses in the accompanying financial statements. The research and development funding expired as scheduled in October 1996. The Company also recorded as contract revenue under the Agreement a milestone payment of \$1.0 million in 1996. The Agreement provides for additional payments to the Company upon the achievement of certain milestones related to certain remaining licensed products under the Agreement, as well as the payment of royalties to the Company on net sales of licensed products. The royalty rate is subject to reduction upon the occurrence of certain events. In March 1998, Roche acquired Boehringer Mannheim. The Company cannot predict the outcome or timing of whether Roche will decide to continue, modify or terminate the preclinical development program for some or all of the Boehringer Mannheim preclinical development programs being conducted with the Company.

Novartis

In April 1993, the Company entered into agreements with Sandoz Pharma, Sandoz, Ltd. and Sandoz Pharmaceuticals Corporation (collectively, "Novartis") to acquire certain licenses and rights to certain human, humanized and mouse monoclonal antibodies and certain related know-how, patent rights, equipment and materials. The Company is pursuing development of these products with the intent of producing treatments for certain diseases, and has obtained from Novartis worldwide manufacturing and marketing rights to these products. The agreements call for milestone payments of up to \$5.0 million to Novartis in the event of certain product approvals. The agreements further specify that Novartis has certain co-promotion and co-marketing rights for certain of the products licensed and will be entitled to royalties on the Company's sales of certain products in countries where Novartis does not sell such products.

Kanebo

In February 1992, Kanebo Ltd. ("Kanebo") entered into a product licensing agreement with the Company. Under this agreement, the Company received a licensing and signing fee, research and development funding and milestone payments and may receive additional milestone payments and royalties on product sales, if any. Since December 31, 1994, the Company has received payments for delivery of manufactured drug substance under related supply agreements. These amounts are not material.

Lilly

In December 1997, the Company entered into a research, development and licensing agreement with Eli Lilly & Company ("Lilly"). The Company received a non-refundable licensing and signing fee under the Agreement of \$3.0 million in 1997, of which the Company recognized \$1.35 million in 1997. Related costs under the agreement are anticipated to approximate the related research and development funding revenue and the portion of these costs incurred in 1997 are included in research and development expenses in the accompanying financial statements. The agreement further provides for additional annual research funding of \$2.4 million for the second through fifth years if the agreement is not earlier terminated. In addition, under this agreement the Company can earn milestones, receive royalty payments on net sales of licensed products and negotiate co-promotion rights in the U.S. and Canada. The agreement may be terminated by Lilly upon written notice ranging from 30-180 days upon the

occurrence of certain events, including the event that certain key personnel are no longer associated with the Company or are unable to fulfill certain obligations under the Agreement with Lilly.

Humanization Agreements

Since December 31, 1994, PDL has entered into six antibody humanization agreements pursuant to which the Company performed antibody humanization services and granted patent licenses to specified antibody targets with Roche, Mochida Pharmaceutical Co., Ltd., Toagosei Co., Ltd., Genetics Institute, Inc. (a wholly-owned subsidiary of American Home Products Corporation), Teijin Limited and Ajinomoto Co., Inc. Under these agreements, PDL received a licensing and signing fee and the right to receive milestone payments for achievement of certain specified milestones, as well as royalties on product sales, if any. Under some of these agreements, PDL received certain rights to co-promote the product. The Company recognized \$4.0 million in 1997, \$4.5 million in 1996 and \$1.0 million in 1995 under these arrangements.

Patent Licensing Agreements

Since December 31, 1994, PDL has entered into seven patent licensing agreements with Sankyo Co., Ltd., Biogen, Inc., IDEC Pharmaceuticals Corporation (two licenses), MedImmune, Inc. (two licenses) and NeoRx Corporation relating to antibodies humanized by those companies. In each agreement, PDL granted a worldwide, nonexclusive license under its humanized antibody patents to the other company for an antibody to a specific target antigen. In each case, PDL received a licensing and signing fee and the right to receive royalties on net sales of licensed products. Under some of these agreements, PDL could also receive milestone payments. The Company recognized \$5.4 million in 1997, \$1.0 million in 1996 and no revenue under these types of arrangements in 1995.

Other Accrued Liabilities

At December 31, other accrued liabilities consisted of the following:

(In thousands)

	1997	1996
Employee stock purchase plan Clinical trials Accrued rent Other accrued liabilities	\$379 1,434 256 1,577	\$334 1,843 282 1,096
	\$3,646 ========	\$3,555 =======

The Company has a policy of recording expenses for clinical trials based upon pro rating estimated total costs of a clinical trial over the estimated length of the clinical trial and the number of patients anticipated to be enrolled in the trial. Expenses related to each patient are recognized ratably beginning upon entry into the trial and over the course of the trial. In the event of early termination of a clinical trial, management accrues an amount based on its estimate of the remaining non-cancellable obligations associated with the winding down of the clinical trial.

4. Commitments

The Company occupies leased facilities under agreements that expire in 1998, 2000, 2004 and 2010. The Company also has leased certain office equipment under operating leases. Rental expense under these arrangements totaled approximately \$1.7 million, \$1.3 million, and \$1.3 million for the years ended December 31, 1997, 1996 and 1995, respectively.

At December 31, 1997 the total future minimum non-cancelable payments under these agreements are approximately as follows:

(In thousands)

III Cilousalius)	
1998	\$2,289
1999	2,900
2000	2,763
2001	1,870
2002	1,913
Thereafter	13,359
	\$25,094
	=======================================

In July 1997, the Company entered into a lease agreement for a term of approximately twelve years to lease approximately 90,000 square feet of research and development and general office space in Fremont, California. The Company plans to relocate its California headquarters to this facility during the third or fourth quarter of 1998. The Company plans to invest approximately \$13 million in order to make the building suitable for its operations. Lease commitments under this arrangement are included above.

Effective in June 1997, the Company entered into a Sponsored Research Agreement with Stanford University to provide aggregate funding and equipment support of up to \$3 million over a period of 3 years for the laboratory of Stanley Falkow, Ph.D. In 1997, the Company provided approximately \$1.0 million in funding and equipment support under this commitment. Dr. Falkow is a member of the Board of Directors and a Distinguished Investigator (consultant) of the Company. The funding arrangement provides the Company with certain exclusive rights to intellectual property resulting from the research efforts in Dr. Falkow's laboratory during the funding period. The amount of annual funding from the Company is subject to reduction in the event that Dr. Falkow obtains other grants or financial support for his laboratory. The agreement further provides that the Company may terminate the funding arrangement upon 90 days written notice.

5. Short- and Long-Term Investments

The Company invests its excess cash balances primarily in short-term and long-term marketable securities and U.S. government and government agency notes. These securities are classified as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in stockholders' equity. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. The cost of securities sold is based on the specific identification method, when applicable.

The following is a summary of available-for-sale securities. Estimated fair value is based upon quoted market prices for these or similar instruments.

(In thousands)

(III thousands)	Available-for-Sale Securities				
December 31, 1997	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	
Securities of the U.S. Government and its agencies Mortgage-backed	\$139,815	\$589	(\$15)	\$140,389	
securities	14,000			14,000	
Total	\$153,815 =======	\$589	(\$15)	\$154,389	
December 31, 1996					
Securities of the U.S. Government and its agencies	\$85,393	\$133	\$	\$85,526	

During 1997, there were no realized gains or losses on the sale of available-for-sale securities, as all securities liquidated in 1997 were held to maturity. During 1996, there were no realized gains or losses on the sale of available-for-sale securities, as all securities liquidated in 1996 were held to maturity. The remaining contractual period until maturity of short-term and long-term investments generally range from 1 to 12 months, and 13 to 24 months, respectively. The mortgage-backed securities, which had a maturity of 30 years, were sold in February 1998 and reinvested in securities of U.S. Government agencies with maturities ranging up to 24 months.

Stockholders' Equity

1997 Public Offering

In March 1997, the Company completed a public offering in which it sold 2,275,000 shares of common stock at a price per share of \$32.00. The net proceeds of this offering to the Company were approximately \$68.2 million.

1997 Private Placement

In October 1997, the Company entered into a Stock Purchase Agreement with Toagosei pursuant to which the Company sold 44,568 shares of Common Stock to Toagosei at a price of \$44.875. The net proceeds of this offering to the Company were approximately \$2.0 million.

1991 Stock Option Plan

In December 1991, the Board of Directors adopted the 1991 Stock Option Plan (the "Option Plan"). During 1995, the stockholders approved an increase in the number of shares reserved under the Option Plan from 2,000,000 to 4,000,000 shares of common stock for the grant of options under the Option Plan.

At December 31, 1997, options to purchase 957,320 shares were exercisable at prices ranging from 6.25 to 42.44. Options granted

under the Option Plan generally vest at the rate of 25 percent at the end of the first year, with the remaining balance vesting monthly over the next three years in the case of employees, and ratably over two or five years in the case of advisors and consultants.

1992 Outside Directors' Stock Option Plan

In February 1992 the Board of Directors adopted the 1992 Outside Directors' Stock Option Plan (the "Directors' Plan"). The Company has reserved 200,000 shares of common stock for the grant of options under the Directors' Plan. Through December 31, 1997, the Company granted options to purchase 135,000 shares at exercise prices ranging from \$7.25 to \$38.75 per share, of which 40,585 were exercisable at December 31, 1997. Options granted pursuant to the Directors' Plan vest ratably over five years. A total of 17,916 options were exercised through December 31, 1997.

1993 Employee Stock Purchase Plan

In February 1993, the Board of Directors adopted the 1993 Employee Stock Purchase Plan (the "Employee Purchase Plan"). The Company has reserved 300,000 shares of common stock for the purchase of shares by employees under the Employee Purchase Plan. Eligibility to participate in the Employee Purchase Plan is essentially limited to full time employees of the Company who own less than 5% of the outstanding shares of the Company. Under the Employee Purchase Plan, eligible employees can purchase shares of the Company's common stock based on a percentage of their compensation, up to certain limits. The purchase price per share must equal at least the lower of 85% of the market value on the date offered or on the date purchased. During 1997, an aggregate of 30,456 shares was purchased by employees under the Employee Purchase Plan at prices ranging from \$23.27 to \$24.23 per share.

Accounting for Stock-Based Compensation

The Company has elected to follow Accounting Principles Board Opinion No. 25, "Accounting of Stock Issued to Employees" ("APB 25") and related interpretations, in accounting for stock options granted to employees, consultants and directors under the Option Plan and Directors' Plan because, as discussed below, the alternative fair value accounting provided for under Financial Accounting Standard 123 "Accounting for Stock-Based Compensation" ("FAS 123") requires use of option valuation models that were not developed for use in valuing employee stock options. Under APB 25, because the exercise price of the Company's stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized. Pro forma information regarding net income and earnings per share in 1997, 1996 and 1995 has been determined as if the Company had accounted for its stock options under the fair value method prescribed by FAS 123. The resulting effect on pro forma net income and earnings per share on a pro forma basis disclosed for 1997, 1996 and 1995 is not likely to be representative of the effects on net income and earnings per share on a pro forma basis in future years, because 1997, 1996 and 1995 pro forma results include the impact of only three years, two years and one year, respectively, of options vesting, while subsequent years will include additional years of vesting. The 1997 pro forma net loss excludes the \$11.9 million noncash special charge related to the extension of all stock options granted prior to February 1995 except stock options granted to one non-employee director (See Note 9). The special charge represents the intrinsic value of the modified options calculated in accordance with APB 25. Under FAS 123, only the additional compensation cost related to the time value of the modified options is included in pro forma net losses.

(In thousands, except per share data) 1997 1996 1995 Net loss: (\$11,796) (\$23,875) As reported (\$8,354)(\$17,727)Pro forma (\$14,399)Net loss per share: (\$1.35)(\$0.76)(\$0.54)As reported Pro forma (\$1.00)(\$0.92)(\$0.60)

The fair value of each option grant is estimated on the date of grant using the Black-Scholes options pricing model with the following weighted-average assumptions used for grants in 1997, 1996 and 1995, respectively: (a) no dividends; (b) expected volatility of 55%; (c) weighted-average risk-free interest rates of 6.22%, 5.93% and 6.46%; and (d) expected lives of 6 years.

A summary of the status of the Company's stock option plans at December 31, 1997, 1996 and 1995, and changes during the years ending those dates is presented below.

(In thousands, except exercise prices)

1997 1996 1995

	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	1,941	\$18.44	1,756	\$15.61	1,412	\$13.72
Granted	448	36.25	608	24.90	544	18.99
Exercised	(237)	17.16	(309)	13.23	(137)	9.41
Forfeited	(52)	23.66	(114)	21.32	(63)	16.75
Outstanding at end of year	2,100	22.25	1,941	18.44	1,756	15.61
	========		========		========	
Weighted average fair value of options granted during the year		\$21.33 =======		\$14.23 =======		\$11.01 ======

The following information applies to all stock options under the Company's stock option plans at December 31, 1997:

(In thousands, except exercise prices and remaining contractual life data)
Options Outstanding Options Exercisable

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$ 6.25 - \$ 10.50	181	4.54	\$7.82	179	\$7.79
12.13 - 18.13	803	6.47	16.00	563	10.99
19.06 - 29.25 31.50 - 42.44	698 418	8.27 9.60	24.41 36.94	232 24	23.41 35.88
31.30 - 42.44	416	9.00	30.94		33.00
	2,100		\$22.25	998	\$16.54
	=========			=========	

7. Income Taxes

As of December 31, 1997 the Company had federal and state net operating loss carryforwards of approximately \$45.5 million and \$3.9 million, respectively. Federal net operating loss carryforwards will expire at various dates beginning in 2002 through 2012, if not utilized.

The federal net operating loss carryforward differs from the accumulated deficit principally due to temporary differences in the recognition of certain revenue and expense items for financial and federal tax reporting purposes, consisting primarily of in-process technology capitalized for federal tax purposes.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting and the amount used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities for federal and state income taxes as of December 31 are as follows:

(In thousands)

(III tilousalius)	1997	1996
Deferred tax assets: Net operating loss carryforwards Research credits Deferred revenue Capitalized research and development Special stock option charge Other	\$15,700 3,400 600 3,300 4,700 400	\$11,400 2,400 2,800 500
Total deferred tax assets Valuation allowance for deferred tax asset Net deferred tax assets	28,100 (28,100) \$	17,100 (17,100) \$

Because of the Company's lack of earnings history, the deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by \$6.9 million during the year ended December 31, 1996.

Utilization of the net operating loss and credit carryforwards may be

subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

8. Legal Proceedings

The Company is involved in administrative opposition proceedings being conducted by the European Patent Office with respect to its European patent relating to humanized antibodies. Eighteen oppositions were filed with respect to the issuance of the patent to the Company in January 1996. The opposition briefs argue that the patent was incorrectly granted and should be withdrawn or limited. Other than such administrative proceeding, the Company is not a party to any material administrative proceedings. The Company believes that the outcome of these opposition proceedings will not have a material adverse effect on the financial position, results of operations or the cash flows of the Company. However, if such outcome were to be unfavorable, the Company's right to receive royalties on sales of licensed products such as Zenapax and its ability to license its patents relating to humanized antibodies may be materially adversely affected which could in the future have a material adverse effect on the Company's results of operations, cash flows and financial position.

In 1997, Boehringer Mannheim invoked the dispute resolution provisions under its collaborative research agreement with the Company to address the reimbursement of up to \$2.0 million for the terminated Phase II study of OST 577 for the treatment of CHB initiated by Boehringer Mannheim as well as certain legal expenses related to Boehringer Mannheim's participation in the Company's public offering in early 1997. In March 1998, Roche acquired Boehringer Mannheim. The Company is unable to predict the outcome of this proceeding but in any event has estimated and recorded a liability with respect to this matter. Other than such legal proceeding, the Company is not a party to any material legal proceedings. The collaborative research agreement with Boehringer Mannheim provides for reimbursement from PDL of costs and expenses of up to \$2.0 million for a Phase II study of OST 577 in the event certain conditions are met with respect to that study.

9. Special Charge

In 1997, the Company incurred a non-cash special charge of approximately \$11.9 million related to the extension of the term of all stock options held by employees, officers, directors and consultants of the Company that were granted prior to February 1995, with the single exception of stock options granted to one non-employee director. The non-cash special charge conforms the term of previously granted stock options, which was six years, to those granted since February 1995, ten years. The special charge resulted in an increase in additional paid-in capital of approximately \$11.9 million, although no proceeds were received by the Company.

Report of Ernst & Young LLP, Independent Auditors

Board of Directors and Stockholders Protein Design Labs, Inc.

We have audited the accompanying balance sheets of Protein Design Labs, Inc., as of December 31, 1997 and 1996, and the related statements of operations, stockholders' equity and cash flows for each of three years in the period ended December 31, 1997. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Protein Design Labs, Inc. at December 31, 1997 and 1996, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 1997 in conformity with generally accepted accounting principles.

/s/ ERNST & YOUNG LLP

Palo Alto, California February 3, 1998

PART III

Certain information required by Part III is omitted from this Report in that the Registrant will file a definitive proxy statement pursuant to Regulation 14A for the 1998 Annual Meeting of Stockholders (the "Proxy Statement") not later than 120 days after the end of the fiscal year covered by this Report, and certain information included therein is incorporated by reference.

ITEM 10. EXECUTIVE OFFICERS AND DIRECTORS

The information concerning the Company's directors as required by this Item is incorporated by reference to the Section entitled "Nomination of Directors" of the Proxy Statement.

The information concerning the Company's executive officers as required by this Item is incorporated by reference to the Section entitled "Executive Officers of the Registrant" of the Proxy Statement.

The information concerning compliance with requirements regarding reporting of timely filing of statements regarding changes in beneficial ownership of securities of the Company as required by this Item is incorporated by reference to the Section entitled "Section 16(a) Reporting" of the Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference to the Section entitled "Executive Compensation and Other Matters" of the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this Item is incorporated by reference to the Section entitled "Security Ownership of Certain Beneficial Owners and Management" of the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated by reference to the Section entitled "Executive Compensation and Other Matters - Compensation Committee Interlocks and Insider Participation" of the Proxy Statement.

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM

8-K

- (a) The following documents are filed as part of this report:
- (1) Index to financial statements

The following financial statements of the Company and the Report of the Independent Auditors are included in Part II, Item 8.

Item

	Page
Balance Sheets	57
Statements of Operations	58
Statements of Stockholders' Equity	59
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Report of Ernst & Young LLP, Independent Auditors	74

- (2) All financial statement schedules are omitted because the information is inapplicable or presented in the Financial Statements or notes.
- (3) The items listed on the Index to Exhibits on page 78 are incorporated herein by reference.
- (b) Reports on Form 8-K.

None.

- (c) See (a)(3) above.
- (d) See (a)(3) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its

behalf by the undersigned, thereunto duly authorized.

PROTEIN DESIGN LABS, INC. (Registrant)

/s/ LAURENCE JAY KORN By:

> Laurence Jay Korn, Chief Executive Officer and Chairperson of the Board

of Directors

March 30, 1998

Date

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Da	ite	
	Chief Executive Officer and - Chairperson of the Board of Directors (Principal Executive Officer)	March S	30,	1998
/s/ JON S. SAXE	President and Director	March	30,	1998
	(Principal Accounting Officer)			
/s/ CARY L. QUEEN	Director -	March	30,	1998
(Cary L. Queen)				
/s/ GEORGE M. GOULD	Director -	March	30,	1998
(George M. Gould)				
/s/ STANLEY FALKOW	Director	March	30,	1998
(Stanley Falkow)	-			
/s/ MAX LINK	Director	March	30,	1998
(Max Link)	-			
/s/ JURGEN DREWS	Director	March	30,	1998
(Jurgen Drews)	-			

INDEX TO EXHIBITS

Number

Exhibit

Number Exhibit Title

Restated Certificate of Incorporation. (Incorporated by reference to Exhibit 3.1 to Annual Report on Form 10-K filed March 31, 1993.)

3.2 Amended and Restated Bylaws. (Incorporated by reference to Exhibit 3.1 to Annual Report on Form 10-K filed March 31, 1995.)

4.1 Registration Rights Agreement between the Company and certain holders of Preferred Stock and Common Stock, dated August 21, 1986. (Incorporated by reference to Exhibit 4.1 to Registration Statement No. 33-44562 effective January 28, 1992.)

- 4.2 Amendment to Registration Rights Agreement between the Company and
- Amendment to Registration Rights Agreement between the Company and certain holders of Preferred Stock and Common Stock, dated March 16, 1989. (Incorporated by reference to Exhibit 4.2 to Registration Statement No. 33-44562 effective January 28, 1992.)
- 4.3
 Registration Rights Agreement between the Company and Hoffmann-La
 Roche Inc., dated March 16, 1989. (Incorporated by reference to
 Exhibit 4.3 to Registration Statement No. 33-44562 effective January
 28, 1992.)
- 4.4 Standstill Agreement between the Company and Hoffmann-La Roche Inc., dated March 16, 1989. (Incorporated by reference to Exhibit 4.4 to Registration Statement No. 33-44562 effective January 28, 1992.)
- 4.5
 Registration Rights Agreement between the Company and Corange
 International Limited, dated October 28, 1993. (Incorporated by
 Reference to Exhibit 4.5 to Annual Report on Form 10-K filed March 31,
 1994.)
- 4.6 Standstill Agreement between the Company and Corange International Limited, dated October 28, 1993. (Incorporated by Reference to Exhibit 4.5 to Annual Report on Form 10-K filed March 31, 1994.)
- 4.7
 Amendment No. 1 to Stock Purchase Agreement, Registration Rights
 Agreement and Joint Development, Marketing and Licensing Agreement.
 (Incorporated by Reference to Exhibit 5.2 to Current Report on Form 8-K filed December 15, 1994.)
- *10.1
 1991 Stock Option Plan, as amended on October 20, 1992 and June 15,
 1995, together with forms of Incentive Stock Option Agreement and
 Nonqualified Stock Option Agreements. (Incorporated by reference to
 Exhibit 10.1 to Annual Report on Form 10-K filed March 31, 1996.)
- *10.2
 Founder Stock Purchase Agreement between the Company and Dr. Laurence Jay Korn, dated August 21, 1986. (Incorporated by reference to Exhibit 10.3 to Registration Statement No. 33-44562 effective January 28, 1992.)
- *10.3
 Founder Stock Purchase Agreement between the Company and Dr. Cary Queen, dated January 1, 1987. (Incorporated by reference to Exhibit 10.4 to Registration Statement No. 33-44562 effective January 28, 1992.)
- *10.4 1986 Stock Purchase Plan. (Incorporated by reference to Exhibit 10.18 to Registration Statement No. 33-44562 effective January 28, 1992.)
- *10.5
 Forms of Stock Purchase Agreement under the 1986 Stock Purchase Plan. (Incorporated by reference to Exhibit 10.19 to Registration Statement No. 33-44562 effective January 28, 1992.)

*10.6

Outside Directors Stock Option Plan, together with form of Nonqualified Stock Option Agreements. (Incorporated by reference to Exhibit 10.31 to Annual Report on Form 10-K filed March 31, 1993.)

*10.7

1993 Employee Stock Purchase Plan. (Incorporated by reference to Exhibit 10.32 to Annual Report on Form 10-K filed March 31, 1993.)

*10.8

Letter Agreement between the Company and Saxe Associates, dated June 14, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.9 to Annual Report on Form 10-K filed March 31, 1994.)

10 0

Lease Agreement between the Company and Charleston Properties, a California general partnership, dated December 22, 1989. (Incorporated by reference to Exhibit 10.5 to Registration Statement No. 33-44562 effective January 28, 1992.)

10 10

First Amendment of Lease between the Company and Charleston Properties, a California general partnership, dated August 31, 1992. (Incorporated by reference to Exhibit 10.26 to Annual Report on Form 10-K filed March 31, 1993.)

10.11

Lease Agreement between the Company and Plymouth Business Center I Partnership, a Minnesota general partnership, dated February 10, 1992. (Incorporated by reference to Exhibit 10.28 to Annual Report on Form 10-K filed March 31, 1993.)

10.12

Amendment No. 1 to Lease Agreement between the Company and Plymouth Business Center I Partnership, a Minnesota general partnership, dated July 8, 1993. (Incorporated by reference to Exhibit 10.14 to Annual Report on Form 10-K filed March 31, 1994.)

10.13

License Agreement between the Company and the National Technical Information Service effective as of October 31, 1988 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.7 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.14

License Agreement between the Company and Hoffmann-La Roche Inc. effective January 31, 1989 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.8 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.15

License Agreement between the Company and F. Hoffmann-La Roche & Co. effective January 31, 1989 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.9 to Registration Statement No. 33-44562 effective January 28, 1992.)

License Agreement between the Company and the Medical Research Council of the United Kingdom dated July 1, 1989, as amended on January 30, 1990 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.10 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.17

Software License Agreement among the Company, Molecular Applications Group and Michael Levitt effective September 1, 1990 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.14 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.18

Development and License Agreement between the Company and Yamanouchi Pharmaceutical Company, Ltd. effective February 12, 1991, as amended on February 12, 1991 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.16 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.19

Form of Director and Officer Indemnification Agreement. (Incorporated by reference to Exhibit 10.1 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.20

Stock Purchase Agreement between the Company and certain holders of Preferred Stock and Common Stock dated August 21, 1986. (Incorporated by reference to Exhibit 10.22 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.21

Stock Purchase Agreement between the Company and Hoffmann-La Roche Inc. dated March 16, 1989. (Incorporated by reference to Exhibit 10.25 to Registration Statement No. 33-44562 effective January 28, 1992.)

10.22

Agreement for Purchase and Sale of Assets between the Company and Helix BioCore, Inc., a Minnesota corporation, dated February 10, 1992. (Incorporated by reference to Exhibit 10.27 to Annual Report on Form 10-K filed March 31, 1993.)

10.23

Agreement between the Company and Kanebo, Ltd., a Japanese corporation, dated February 29, 1992. (Incorporated by reference to Exhibit 10.29 to Annual Report on Form 10-K filed March 31, 1993.)

10.24

Letter dated November 4, 1992 amending the License Agreement between the Company and Hoffmann-La Roche Inc. effective January 21, 1989. (Incorporated by reference to Exhibit 10.30 to Annual Report on Form 10-K filed March 31, 1993.)

10.25

Asset Purchase and License Agreement among the Company, Sandoz Pharma Ltd. and Sandoz Pharmaceuticals Corporation, dated April 13, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 5.1 to Current Report on Form 8-K filed April 28, 1993.)

10.2

License Agreement among the Company, Sandoz Pharma Ltd. and Sandoz Ltd., dated April 13, 1993 (with certain confidential information

deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 5.2 to Current Report on Form 8-K filed April 28, 1993.)

10.27

Letter dated October 21, 1993 amending the Asset Purchase and License Agreement among the Company, Sandoz Pharma Ltd. and Sandoz Pharmaceuticals Corporation, dated April 13, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.31 to Annual Report on Form 10-K filed March 31, 1994.)

10.28

Amended and Restated Agreement between the Company and Sloan-Kettering Institute for Cancer Research, dated April 1, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.32 to Annual Report on Form 10-K filed March 31, 1994.)

10.29

Stock Purchase Agreement between the Company and Corange International Limited, dated October 28, 1993. (Incorporated by reference to Exhibit 5.1 to Current Report on Form 8-K filed November 12, 1993.)

10.30

Joint Development, Marketing and License Agreement between the Company and Corange International Limited, dated October 28, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 5.2 to Current Report on Form 8-K filed November 12, 1993.)

10.31

License Agreement between the Company and The Board of Trustees of Leland Stanford Junior University effective as of June 30, 1993 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.35 to Annual Report on Form 10-K filed March 31, 1994.)

10.32

Lease Agreement between the Company and Bio-Shore Holdings, Ltd. dated as of May 16, 1994 (Incorporated by reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed August 2, 1994.)

10.33

Amendment No. 2 to Lease Agreement between the Company and St. Paul Properties, effective as of October 25, 1994. (Incorporated by reference to Exhibit 10.36 to Annual Report on Form 10-K filed March 31, 1995.)

10.34

Amendment No.1 to Lease Agreement between the Company and Bio-Shore Holdings, Ltd. dated as of October 17, 1994. (Incorporated by reference to Exhibit 10.38 to Annual Report on Form 10-K filed March 31, 1995.)

10.35

Patent License Agreement between the Company and Celltech Limited dated as of September 30, 1994 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.39 to Annual Report on Form 10-K filed March 31, 1995.)

Amendment No. 2 to Joint Development, Marketing and Licensing Agreement between the Company and Boehringer Mannheim GmbH dated and effective as of November 7, 1995 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by reference to Exhibit 10.37 to Annual Report on Form 10-K filed March 31, 1996.)

10.37

Development and License Agreement between the Company and an Unnamed Japanese Pharmaceutical Company dated December 28, 1995 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by Reference to Exhibit 10.38 to Annual Report on Form 10-K filed March 31, 1996.)

10.38

Amendment No. 3 to Joint Development, Marketing and Licensing Agreement between the Company and Boehringer Mannheim GmbH dated and effective as of May 31, 1996 (with certain confidential information deleted and marked by a box surrounding the deleted information). (Incorporated by Reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed August 14, 1996.)

10.39

Amendment No. 3 to Lease Agreement between the Company and St. Paul Properties, effective as of November 27, 1996.

10.40

Second Amendment of Lease Agreement between Bio-Shore Holdings, Ltd., and the Company, dated February 25, 1998.

23.1

Consent of Ernst & Young LLP, Independent Auditors.

27.1

Financial Data Schedule.

^{*} Management contract or compensatory plan or arrangement.

Mr. Scott Korney Director of Facilities and Engineering Scios, Inc. 2450 Bayshore Parkway Mountain View, CA. 94043

Re: Second Amendment of Lease Between Bio-Shore Holdings, Ltd., and Protein Design Labs, Inc.

Dear Mr. Korney:

Pursuant to your conversations with Ann Lambrecht, this letter (the "Second Amendment") amends the Office Space Lease dated May 16, 1994, by and between Bio-Shore Holdings, Ltd. ("Bio-Shore") and Protein Design Labs, Inc. ("PDL"), as amended on October 17, 1994 ("Lease") to extend the Term of the Lease through September 30, 1998 (the "Ending Date"), with a monthly rental rate increase to \$3.00 per square foot per month effective as of June 1, 1998.

Effective as of the date hereof, the parties agree as follows:

- 1. The Term of the Lease shall be extended from May 30, 1998 to September 30, 1998 (such 4 month period hereafter called the "Extension Term"). Except as expressly set forth herein, the Extension Term shall be upon the same terms and conditions as provided in the Lease for the initial Term and all other provisions of the Lease shall remain in full force and effect.
- 2. Section 17 of the Lease is hereby terminated in its entirety.
- 3. As of June 1, 1998 and throughout the period of the Extension Term, PDL shall pay Base Rent of \$3.00 per square foot per month, constituting total rent of \$31,635.00 per month ("Monthly Total Rent") (i.e., \$3.00 per square foot per month times 10,545 square feet).
- 4. During the Extension Term, PDL shall not be considered a Holdover Tenant and Section 9.4 of the Lease shall not apply during the Extension Term.

If this Second Amendment is acceptable, please sign where indicated below and return the executed document to me by fax, with the original to follow by mail. Thank you for your cooperation.

PROTEIN DESIGN LABS, INC.

/s/ Douglas O. Ebersole Vice President, Licensing and Corporate Services

cc: Ann Lambrecht

SO AGREED:

BIO-SHORE HOLDINGS, LTD.

By: /s/ John H. Newman

Title: Vice President

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Forms S-8 Nos. 33-65224, 33-50116, 33-50114, and 33-96318) pertaining to the Employee Stock Purchase Plan, Outside Directors Stock Option Plan and 1991 Stock Option Plan of Protein Design Labs, Inc.of our report dated February 3, 1998 with respect to the financial statements of Protein Design Labs, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 1997.

ERNST & YOUNG LLP

Palo Alto, California March 30, 1998 This schedule contains summary financial information extracted from the Balance Sheet and Statement of Operations included in the Company's Form 10-K for the year ended December 31, 1997 and is qualified in its entirety by reference to such Financial Statements.

1

