- ---
- ---

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

FORM 10-K

(Mark One)

[X] Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 1998

[_] Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Transition Period from to

Commission File Number 0-28386

CELL THERAPEUTICS, INC.
(Exact name of registrant as specified in our charter)

WASHINGTON	91-1533912
(State of Incorporation)	(I.R.S. Employer Identification No.)

201 ELLIOTT AVENUE WEST, SUITE 400
SEATTLE, WASHINGTON 98119
(Address of principal executive offices)

Registrant's telephone number, including area code: (206) 282-7100

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, no par value
Preferred Stock Purchase Rights

(titles of classes)

Indicate by check mark whether the registrant (1) has filed all reports required 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 the registrant's knowledge, in the definitive proxy statement incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

On March 15, 1999, Cell Therapeutics, Inc. had 15,534,359 outstanding shares of Common Stock. Of those, 10,426,872 shares of Common Stock were held by nonaffiliates. The aggregate market value of such Common Stock held by nonaffiliates, based on the closing price of such shares on the Nasdaq National Market on March 15, 1999, was approximately $41,707,488. Shares of Common Stock held by each executive officer and director and by each person known to the Company who beneficially owns more than 5% of the outstanding Common Stock have been excluded in that such persons may under certain

circumstances be deemed to be affiliates. This determination of executive officer or affiliate status is not necessarily a conclusive determination for other purposes.

Documents Incorporated by Reference:
Proxy Statement for the registrant's 1999 Annual Meeting of Shareholders (Part III)

- ---
- ---

PART I

ITEM 1: BUSINESS

Except for historical information contained herein, the matters discussed in this Annual Report on Form 10-K contain forward-looking statements that involve risks and uncertainties that could cause actual results to differ materially from those anticipated by such forward-looking statements. Factors that might cause such a difference include, but are not limited to, those risks discussed under the caption "Factors Affecting the Company's Operating Results."

GENERAL

Cell Therapeutics, Inc. ("cti" or the "Company") is a pharmaceutical research and development company that focuses on the discovery, development and commercialization of small molecule drugs that selectively regulate the metabolism of oxidized lipids and phospholipids that play a role in the treatment of cancer and inflammatory and immune diseases. The Company's initial business strategy is to build a diversified, vertically integrated portfolio of oncology products targeting major unmet needs in the treatment of patients with cancer. The Company's lead product candidate, Lisofylline ("LSF(TM)"), is being developed to prevent or reduce treatment-related toxicities, specifically serious and fatal infections, mucositis and treatment-related mortality, among cancer patients receiving high dose radiation and/or chemotherapy. The Company is currently conducting two pivotal Phase III clinical trials for LSF among cancer patients. The first trial is being conducted among patients undergoing high dose induction chemotherapy for the treatment of newly diagnosed acute myeloid leukemia ("AML"). Results from this AML trial are expected in the second half of 1999. The second trial is being conducted among patients receiving high dose radiation and/or chemotherapy followed by bone marrow transplantation ("BMT") from unrelated donors. Enrollment in this BMT trial is expected to be completed in the second half of 1999. The Company has previously conducted a Phase III trial for LSF among patients receiving BMT from related donors in which the primary endpoints were not met.

In addition to testing LSF among oncology patients, the Company is also investigating LSF for use as an agent to prevent or reduce the incidence and severity of acute lung injury ("ALI") and mortality among patients requiring mechanical ventilation for respiratory failure.

In March 1999, the Company expects to complete enrollment of the first 200 patients in a pivotal Phase II/III trial for LSF among patients with ALI and/or acute respiratory distress syndrome ("ARDS"). During the first half of 1999, interim data on these first 200 patients will be analyzed by a Data Safety and Monitoring Board (a "DSMB") established through the National Heart, Lung and Blood Institute (the "NHLBI"). Based on differences in mortality between patients treated with LSF or placebo, this DSMB will recommend whether the trial should continue enrollment or be terminated.

The Company's second lead product candidate, Apra(TM) (CT-2584), is a novel small molecule drug for the treatment of patients with cancers resistant to conventional chemotherapy, including prostate cancer and sarcomas. The Company began a Phase II clinical trial for Apra among patients with prostate cancer in the fourth quarter of 1998 for which it expects preliminary results in the second half of 1999.

In July 1998, the Company licensed exclusive worldwide rights to polyglutamic acid paclitaxel ("PG-TXL(TM)"), a water-soluble and potentially more effective form of the cancer drug Taxol(R), and to all potential related uses of PG-TXL's polyglutamate technology. In preclinical tests, PG-TXL showed fewer side effects and improved anti-tumor activity in ovarian and breast

cancer animal models, when compared to Taxol. The Company anticipates beginning clinical trials for PG-TXL in the second half of 1999.

In December 1998, cti acquired an exclusive option to obtain an exclusive worldwide license to a novel class of orally active copper chelators which block multiple steps in tumor induced new blood vessel formation, a process termed "angiogenesis." By inhibiting the growth of such blood vessels, these anti-angiogenic

compounds may starve tumors of the blood and nutrients which sustain them. The lead compound, SC-7, is currently undergoing preclinical evaluation. The Company plans to evaluate the preclinical toxicology and pharmacology of SC-7 and then determine whether to license and enter development of SC-7 by the third quarter of 1999.

In 1997 and 1998, the Company focused significant resources to expand its oncology drug development activities to build a more diversified portfolio of oncology products by acquiring exclusive rights to develop PG-TXL and SC-7. The Company expects to continue to devote resources to expand its oncology portfolio through additional licenses or acquisitions.

Cell Therapeutics, Inc. was incorporated in Washington in September 1991. The Company has not received any revenue from the sale of products to date and does not expect to receive revenues from the sale of products for at least the next several years. The Company's executive offices are located at 201 Elliott Avenue West, Seattle, Washington 98119, and its telephone number is (206) 282-7100.

SCIENTIFIC OVERVIEW

Cell communication occurs through a complex process that commences when cells respond to environmental signals which may be either physical or chemical, with chemical signals being exemplified by hormones, cytokines and growth factors. These signals initiate a series of biochemical events within the cell, known as signal transduction processes, which result in cellular responses. Cellular lipids, the primary component of cell membranes, have major roles, separating compartments within cells, as signaling molecules and as important modulators of other cellular signaling cascades. Certain cell signaling pathways are essential for normal day-to-day cellular processes and are often referred to as "housekeeping pathways" or "physiologic pathways." These housekeeping pathways are involved in the normal growth and replenishment of cells in the body, such as blood cells and the cells lining the intestinal tract. In contrast, there are also signaling pathways, termed "stress-activated pathways" or "SAPs," which are part of the cellular response to injury following exposure to cell-damaging stimuli such as radiation, chemotherapy or oxidative injury. These pathways are activated in many diseases.

The Company believes that such cell-damaging stimuli such as radiation, chemotherapy or oxidative injury cause a number of their toxic effects by altering the chemical composition of membrane lipids through oxidation or alteration in the relative quantities of the component phospholipids. Additionally, the transformation of a normal cell into a cancer cell is associated with increased production of phosphatidic acid ("PA"). Oxidized lipids and certain phospholipids (such as PA) in turn activate a variety of stress-related signaling pathways within the cell which carry messages to the cell nucleus and result in transcription of selected genes. Such genes may include those encoding (1) inflammatory cytokines which result in activation of inflammatory and immune responses, (2) cytokines which inhibit the growth and renewal of the stem cells in the bone marrow and of the cells lining the intestinal tract, (3) other proteins associated with cell death, and (4) proteins associated with malignant transformation.

Oxidized lipids, PA elevation and activation of SAPs are associated with many disease states and do not appear to be primarily utilized for normal cellular processes. The Company believes that therapeutics which regulate the production and/or degradation of oxidized lipids or phospholipids may offer greater specificity and safety profiles for the treatment of oncologic, inflammatory and immune diseases than pharmaceuticals that modulate the housekeeping or physiologic pathways necessary for normal day-to-day cellular function.

PRODUCTS UNDER DEVELOPMENT

The following table summarizes the potential therapeutic indications, current development status and current collaborators for the Company's products under development:

COMPOUND	TYPE	INDICATION	DEVELOPMENT STATUS
		COLLABORATORS	
		ONCOLOGY	
LSF(TM) (LISOFYLLINE)	Suppressor of lipid oxidation	Prevention of serious infection following high dose chemotherapy for acute myeloid leukemia (AML)	Phase III (ongoing)
		Prevention of serious infection following unrelated bone marrow transplant (BMT)	Phase III (ongoing)
		Reduction in incidence and severity of mucositis followingdose-intensive radio-chemotherapy	Phase IIA (ongoing)
APRA(TM) (CT-2584)	Selective regulator cancer cell phospholipids	Hormone/chemotherapy-resistant prostate cancer	Phase II (ongoing)
		Soft tissue sarcoma	Phase II (expected to begin Q2 1999)
		Lung cancer	Phase II (expected to begin Q4 1999)
PG-TXL(TM) (POLYGLUTAMATE PACLITAXEL)	Polymer delivery of anti-cancer drugs	Breast, lung and ovarian cancers	Phase I (expected to begin Q4 1999)
PG-CAMPTOTHECIN	Polymer delivery of anti-cancer drugs	Colon cancer	Preclinical Development
PG-ETOPOSIDE	Polymer delivery of anti-cancer drugs	Lung cancer	Research
SC-7	Copper chelator	Cancer (anti-angiogenesis)	Preclinical Development
	Johnson & Johnson BioChem Pharma Johnson & Johnson BioChem Pharma BioChem Pharma BioChem Pharma BioChem Pharma BioChem Pharma -- -- -- --		
		INFLAMMATION & IMMUNOLOGY	
LSF	Suppressor of lipid oxidation	Reduction of acute lung injury (ALI) related mortality	Phase II/III (ongoing)
COMPOUND CANDIDATES*	Inhibitors of Th-1 lymphocyte differentiation	Organ transplant rejection Acute graft vs. host disease Multiple Sclerosis Type 1 Diabetes	Research
COMPOUND CANDIDATES*	Suppressors of plasma free fatty acid levels	Type 2 Diabetes	Research
	BioChem Pharma City of Hope/ cti Joint Venture --		

cti is a registered trademark of Cell Therapeutics Inc. LSF, Apra and PG-TXL are proprietary marks of cti. This annual report contains trademarks and service marks of companies other than cti, specifically TAXOL, a registered trademark of Bristol-Myers Squibb Company.

* Compound Candidates refer to collection of compounds with pharmacologic activity.

Except for historical information, all of the information in the column of the above table entitled "Projected Development Status" constitutes forward-

looking statements that involve risks and uncertainties. Actual results may differ materially from those discussed therein, due to the research, development and market risks which could adversely affect the Company's projected timeline for regulatory approval. There can be no assurance that such approval will ever be received, or that it will be received on the dates projected herein. Additional risks and uncertainties are described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein and in the Company's most recently filed SEC documents, such as its most recent Forms 10-K, 10-Q and 8-K.

ONCOLOGY

Overview

Cancer is the second leading cause of death in the United States, resulting in over 550,000 deaths annually. The National Cancer Advisory Board reports that more than eight million people in the United States have cancer, and projects that cancer will surpass heart disease as the leading cause of death in the United States by the end of the decade. Approximately 1.4 million new cases of cancer are diagnosed each year in the United States. The most commonly used methods for treating cancer patients include surgery, radiation and chemotherapy. A cancer patient often receives a combination of these treatment modalities depending upon the type and extent of the disease. At some point in their disease treatment, 70 percent of all cancer patients will receive radiation therapy and 50 percent of all newly diagnosed cancer patients will receive chemotherapy. Despite their benefits for treating cancer, there are significant limitations of, and complications associated with, radiation and chemotherapy which result in a high rate of treatment failure. For example, only ten percent of patients treated with chemotherapy are cured. The principal causes of cancer treatment failure include (1) severe side effects from cancer treatments, (2) existence or emergence of resistance to the cancer killing effects of chemotherapy, (3) inefficiency of current cancer treatments to selectively target their killing effects to tumors; and (4) recurrence of cancer following potentially curative surgery or radiation therapy. The Company is developing a portfolio of products targeting these principal causes of cancer treatment failure.

Severe Side Effects of Anti-Cancer Treatments. Despite their benefits for treating cancer, radiation and chemotherapy treatment result in toxicities that limit the use of potentially more effective doses. These treatment-related toxicities are directly responsible for placing patients at risk for serious and often life threatening infections and other undesirable side effects. There are several means by which radiation and chemotherapy place patients at risk for infection. Radiation and chemotherapy are toxic to rapidly dividing cells, which include not only cancer cells but also certain normal cells such as bone marrow cells, hair follicle cells and the epithelial cells lining the mouth, stomach and intestinal tract. The most common and problematic of the severe side effects attributable to radiation and chemotherapy are neutropenia, or bone marrow suppression of infection-fighting white blood cells ("WBCs"), and mucositis, or damage to the epithelial cells lining the mouth, stomach and intestinal tract. Epithelial cells form an important barrier, preventing potentially lethal bacterial and fungal organisms which reside in the intestinal tract from entering the sterile blood stream and tissues. Damage from radiation or chemotherapy to intestinal epithelial cells disrupts this important barrier, allowing infectious pathogens to gain access to the systemic blood circulation. When neutropenia and mucositis occur together, patients are at high risk for serious and fatal infections. Approximately 575,000 patients receive chemotherapy each year in the United States, with more than 20 percent of these patients developing severe neutropenia and/or mucositis. There are currently no therapies that reduce the incidence of severe or fatal infections or reduce the incidence of severe mucositis.

Chemotherapy Resistance. Resistance to the cancer killing effects of conventional chemotherapeutic agents is a major impediment to the effective treatment of cancer. Approximately 90 percent of all cancer patients undergoing chemotherapy never respond or develop resistance to chemotherapy. Because many chemotherapeutic agents share similar properties and mechanisms of action, once a tumor develops resistance to a single therapeutic agent, it becomes resistant to several classes of chemotherapeutic drugs.

Selective Targeting of Cancer. The majority of chemotherapeutic agents kill cells by mechanisms which are not selective to cancerous cells. Because these chemotherapeutic agents are administered systemically, they also lead to toxicities in normal tissues which ultimately limits the potential effectiveness of chemotherapy. While certain cancers may be treated with monoclonal antibodies such as Rituxan(R) and Herceptin(R), which are more selective for the treatment of tumor tissue than for normal tissue, the majority of current chemotherapeutic agents in use are not selective for tumor tissue. Methods which permit the targeted delivery of chemotherapy or radiation therapy represent a major need in the treatment of patients with cancer.

Prevention of Cancer Recurrence. Although the removal of cancers diagnosed at an early stage offers a potential cure, the presence of microscopic spread ("metastases") or the incomplete removal of microscopic portions of a primary tumor leads to the recurrence of the cancer, often in a more widespread manner. Agents which block the production of certain hormones, such as estrogen or testosterone, have been shown to prevent recurrence in early stages of certain cancers, such as breast and prostate cancer. However, only a minority of cancers respond to such hormonal therapies. Recent scientific data has identified several blood vessel growth substances known as "angiogenic factors", which are secreted by tumors. These angiogenic factors permit tumors to develop blood vessels in order to receive nutrients needed for growth, a process known as "angiogenesis". The Company believes that novel inhibitors of tumor angiogenesis may address a significant need in the prevention of cancer recurrence.

The Company is focusing its oncology development efforts on building a diversified, vertically integrated portfolio of oncology products to target the principal causes of cancer treatment failures described above. These include (1) LSF, an agent being developed to prevent or reduce the incidence of serious and fatal infections, mucositis and treatment-related mortality among patients receiving high dose radiation and/or chemotherapy, (2) Apra, a novel anti-cancer drug for the treatment of patients with tumors resistant to conventional chemotherapeutic agents, (3) PG-TXL, a novel water-soluble form of the cancer drug paclitaxel, that the Company believes may be a more effective and less toxic anti-tumor agent, due to its ability to more selectively target paclitaxel to tumor tissues, and (4) a class of synthetic small molecules, including SC-7, which are inhibitors of tumor angiogenesis and thereby may prevent the recurrence of cancer following surgery and radiochemotherapy. The Company may license or acquire additional agents, which, when used with other cti oncology products, may provide added value to the integrated management of oncologic disease.

Lisofylline

LSF is a synthetic small molecule drug undergoing investigation in two pivotal Phase III clinical trials among cancer patients receiving high dose radiation and/or chemotherapy. Unlike blood cell growth factors, LSF is being developed to prevent or reduce the incidence of serious and fatal infections, mucositis and treatment-related mortality. The Company believes that the use of LSF may permit the safer delivery of higher, potentially more effective doses of radiation and chemotherapy.

The Company's development strategy for LSF has been to target anti-cancer treatment regimens which are accompanied by a high incidence of serious neutropenic infections, mucositis and treatment-related mortality. The Company initially is pursuing the development of LSF for the treatment of patients with AML undergoing high dose induction chemotherapy and for cancer patients receiving high dose radiation and/or chemotherapy followed by BMT, for the following reasons: (1) following the use of high dose radiation and/or chemotherapy, up to 50 percent of patients may develop serious infections, and up to 50 percent of those patients may die from the side effects of the cancer treatment, (2) in these patient groups there is a high unmet need for agents which reduce serious and fatal infections, (3) under recent FDA initiatives, New Drug Applications ("NDAs") for serious, life-threatening or severely debilitating indications that provide a meaningful therapeutic benefit to patients over existing treatments may be eligible to receive accelerated review and approval, and (4) the Company believes that, once approved, agents which target life threatening side effects of cancer therapy and improve patient outcomes will be adopted by health care providers, patients and third-party payors. The Company is also investigating the use of LSF to reduce the incidence and/or the severity of mucositis following dose-intensive radiation and chemotherapy.

In 1995, in the United States, 75,000 patients received induction-type chemotherapy regimens for the treatment of leukemias, such as AML, and lymphomas, and almost 200,000 patients received dose-intensive chemotherapy for a variety of solid tumor types, 30 percent of whom are at risk to develop severe mucositis. In 1995, approximately 20,000 patients in the United States were treated with ablative doses of chemotherapy requiring BMT or peripheral blood stem cell replacement. This type of chemotherapy regimen is one of the fastest growing types of cancer treatments in the United States, with an estimated annual growth rate of 15 to 20 percent. Despite this growth rate, only 25 percent of patients will find an acceptable family member bone marrow donor. In 1986 the National Marrow Donor Program was established to provide bone marrow from unrelated donors for patients who lacked a family member donor. However, the high incidence of infection and mortality associated with this type of treatment limits its more widespread potential application.

The Company is conducting an ongoing pivotal Phase III trial in patients with newly diagnosed AML who receive high dose induction chemotherapy. In addition, the Company is conducting a pivotal Phase III clinical trial of LSF in patients with leukemias or lymphomas who require BMT (from unrelated donors) after receiving ablative, or bone marrow-destroying, doses of radiation and/or chemotherapy. In the third quarter of 1998, the Company also commenced a Phase IIA clinical trial of LSF in patients with head and neck cancer who receive dose-intensive radiation and chemotherapy and who develop severe mucositis. Common to each of these three categories of anti-cancer treatment (ablative, induction and dose-intensive) is the occurrence of neutropenia and the breakdown of the epithelial barrier cells lining the mouth, stomach and intestinal tract, placing patients at a high risk of life-threatening infections, severe mucositis and mortality.

Clinical Trials--AML. In the third quarter of 1997, the Company reported the preliminary results of its 70 patient, single center, double-blind placebo controlled Phase II trial of LSF (3 mg/kg) among patients with newly diagnosed AML undergoing high dose induction chemotherapy. This trial examined the effects of LSF on the incidence of neutropenic infections (serious and non-serious), infection-related deaths, overall mortality and complete remission rates. On an intent to treat analysis at 60 days following start of induction chemotherapy, this study demonstrated that the administration of 3 mg/kg of LSF resulted in a statistically significant reduction in the incidence of serious neutropenic infections ($p=0.043$) and of the incidence of neutropenic fungal infections ($p=0.01$), when compared to placebo patients. In addition, there was a strong trend toward a reduction in fatal infections ($p=0.19$) and a trend toward a reduction in all (serious and non-serious) neutropenic-related infections ($p=0.29$). No serious side effects attributable to LSF were detected in this trial.

The Company has ongoing a Phase III multi-center randomized placebo controlled trial of LSF (3mg/kg) among patients with newly diagnosed AML undergoing high dose induction chemotherapy. The primary endpoint of this study is the reduction of the incidence of serious neutropenic infections. In the fourth quarter of 1997, the Company amended this ongoing Phase III AML trial to increase enrollment to 160 patients in order to provide adequate statistical power for the primary endpoint. In July 1998, an independent DSMB reviewed information on patients enrolled in this study to examine whether significant imbalances in risk factors were present between treatment arms. The DSMB identified no safety issues and, following its review, recommended that the enrollment in the study be completed as planned. The Company anticipates completing enrollment and the minimum 60 day follow-up period in the first half of 1999, with results expected early in the second half of the year. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes."

Clinical Trials--Related Donor BMT. In the first quarter of 1996, the Company completed a 60 patient, multi-center, double-blind placebo controlled Phase II trial which investigated the effect of two different doses (2 mg/kg and 3 mg/kg) of LSF on the rate of blood cell recovery and the incidences of fever, infection, toxicity and mortality in cancer patients undergoing high dose radiation and/or chemotherapy followed by BMT. On an intent to treat analysis at 100 days following BMT, this study demonstrated that administration of 3 mg/kg of LSF resulted in a statistically significant reduction in mortality ($p=0.022$), the incidence of serious and fatal infections ($p=0.005$), and the duration of absolute neutropenia ($p=0.046$)

(defined as the number of days following BMT with fewer than 100 neutrophils per microliter of blood) when compared to placebo recipients or patients randomized to receive 2 mg/kg of LSF. In addition, there was a strong trend toward a reduction in

the overall incidence of mucositis (p=0.08) and in the incidence of severe mucositis (p=0.104) among higher dose LSF recipients compared to placebo recipients or patients randomized to receive the lower dose of LSF. Certain endpoints of the trial regarding neutrophil and platelet recovery, the duration of fever and transfusion requirements were not met. No serious adverse side effects attributable to LSF were detected in this trial.

On March 25, 1998, the Company announced preliminary results of its multi-center, double blind placebo controlled pivotal Phase III trial for LSF in 132 patients undergoing high dose radiation and/or chemotherapy followed by BMT from related donors (siblings). This trial utilized a 3 mg/kg dose of LSF. The primary endpoints of this trial, reduction in neutropenia-related infections and reduction in BMT treatment-related mortality, were not met. The Company believes that the ability to meet the primary endpoint of this study may have been affected by a statistically significant (p=0.01) imbalance in high-risk patients who had pre-existing medical conditions (including heart disease, diabetes and hepatitis) among those patients who were randomized to the LSF arm of the study and who were treated with intensive treatment regimens.

Clinical Trials--Unrelated Donor BMT. In the first quarter of 1997, the Company commenced a 100 patient pivotal Phase III trial of LSF (5 mg/kg) among patients with cancer receiving high dose radiation and/or chemotherapy followed by BMT from unrelated donors. In addition to being at high risk for serious and fatal infections, these patients have a high incidence of severe mucositis and treatment-related deaths. This pivotal Phase III trial will determine the effect of higher doses of LSF on serious neutropenic infection and treatment-related mortality and will provide supportive dosing and efficacy data for mucositis applications of LSF. If effective, the Company believes that the use of LSF may increase the number of patients who receive BMT from unrelated donors. Following analysis of the Phase III related donor BMT trial in the spring of 1998, the Company amended this ongoing Phase III BMT trial to increase enrollment to 206 patients in order to provide statistical power for the two primary end points. In July 1998, an independent DSMB reviewed information on patients enrolled in the trial to examine whether significant imbalances in risk factors were present between the treatment arms. The DSMB identified no safety issues and following its review, recommended that enrollment in the study be completed as planned. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes."

Clinical Trials--Mucositis. In the third quarter of 1998, the Company commenced a 12 to 20 patient, single-center, Phase IIA trial of LSF in patients with head and neck tumors receiving dose-intensive radiation and chemotherapy who develop severe mucositis. The trial is designed as an open label, dose-ranging study utilizing a new infusion schedule of LSF. Unlike other ongoing studies of LSF, where the drug is administered four times a day over a ten-minute infusion period, this trial examines the safety and efficacy of LSF administered continuously to patients on an outpatient basis. The drug is started just prior to chemotherapy and continued during the entire eight to eleven week period of cancer treatment. Four dose levels are being investigated. If dose-limiting toxicities are observed, patients will be allowed to switch to the standard four times daily dosing regimen of LSF. The Company anticipates that this trial will be completed in the second half of 1999 and, if successful, that Phase III trials would be commenced in 2000. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes."

Mechanism of Action. Following exposure to radiation, chemotherapy or oxidative injury, highly reactive oxygen free radicals are generated. These oxygen free radicals are "soaked up" both in the blood stream and in cell membranes by a pool of lipids termed "oxidizable lipids" to produce both complex oxidized lipids and highly reactive free oxidized lipids such as HPODEs. HPODEs are not found in normal individuals but are elevated in patients with cancers. Levels may be further affected by cancer treatments such as chemotherapy and high dose radiation chemotherapy followed by BMT. Oxidized lipids have also been shown to have immediate effects on cell membranes, resulting in cell membrane perturbation or disruption which may

lead to cell damage or cell death among the barrier cells lining the intestine or respiratory tract. It has been shown that elevated HPODE levels statistically correlate with the development of complications following high dose radiation and/or chemotherapy followed by BMT. Therefore, lipid oxidation may contribute to the early breakdown in mucosal barrier function observed following radiation, chemotherapy or oxidative injury, allowing potentially pathogenic bacteria and fungi to gain access to an otherwise sterile bloodstream and tissues. Oxidized lipids also cause activation of a number of SAPs within the cell, resulting in further tissue injury, inflammation and delayed healing.

While the biomolecular target for LSF is presently unknown, its therapeutic activity appears to be due to LSF's effect on epithelial and inflammatory cell signaling pathways. Recent data has shown that LSF can specifically interrupt the cell signaling pathway associated with the development of inflammatory lymphocytes, known as Th1 cells, which mediate a number of complications experienced by cancer patients who receive high dose radiation and/or chemotherapy followed by BMT. Through exploitation of this pathway, the Company believes it will define the biomolecular target for LSF. Moreover, these findings have enabled company scientists to develop chemical analogs of LSF, which have the potential to be administered to patients orally.

The Company believes that the effects of LSF on lipids and on the activation of SAPs may represent a critical upstream point of intervention in the initiation of the cellular stress and injury response. By modulating these biochemical events, LSF may be able to prevent both early and late damage to the epithelial barrier cells lining the mouth, stomach and intestinal tract, resulting in a reduction in infection, mucositis and mortality following high dose anti-cancer treatment. Because epithelial barrier cells also line the lung tissue in the respiratory tract, comprised by cells which are also susceptible to such oxidative injury, the Company believes that LSF may also be effective for preventing or reducing ALI in patients requiring mechanical ventilation for respiratory failure. See "--Inflammatory Disease."

Apra (CT-2584)

Apra is the Company's novel small molecule drug under investigation for the treatment of patients with cancers resistant to conventional chemotherapy, including prostate cancer and sarcomas. The Company believes that Apra has a unique mechanism of action which may allow the drug to be (1) toxic to cancers which have multidrug resistance to conventional chemotherapeutic agents, including cancers with multidrug resistance due to overexpression of a gene known as the "mdr" gene, (2) more toxic to cancerous cells than to non-cancerous cells, (3) not susceptible to development of multidrug resistance, and (4) effective when used alongside conventional anti-cancer treatments.

The Company's development strategy for Apra is to target cancers resistant to conventional chemotherapy, such as hormone-refractory prostate cancer and sarcomas that have progressed despite chemotherapy. The Company believes that this represents an opportunity to pursue first line therapeutic applications of the drug where alternative treatments are lacking or ineffective. The Company intends to extend its development of Apra to use as a second line therapy for cancers such as lung, colon and breast cancers which acquire resistance to conventional first line chemotherapeutic agents, resulting in treatment failure. Because Apra's mechanism for tumor cell killing appears to be unique, and because it does not have the toxicities of conventional anti-cancer agents, the Company believes that Apra may be used both as a first line therapy for a variety of cancer types for which there is no effective standard therapy and alongside conventional chemotherapeutic agents.

Preclinical and Clinical Trials. In preclinical testing, Apra was toxic to nearly all tumor cell lines tested and to tumor cells grown from human tumor biopsy samples. These cell lines and samples included prostate, sarcomas, brain, colon, breast, lung and ovarian cancers, as well as certain leukemias and lymphomas.

The Company has completed two Phase I trials for Apra among patients with a variety of cancers resistant to conventional chemotherapy. The first trial was co-sponsored by the Cancer Research Campaign and conducted at the Christie Hospital in the United Kingdom. The second Phase I trial was conducted at the Memorial Sloan Kettering Cancer Research Center in the United States. In those trials, approximately 30 percent of the 52 patients with advanced prostate,

soft tissue sarcoma/mesothelioma, ovarian, renal, thyroid and breast cancers, experienced stable disease or better with Apra treatment. Fifteen patients remained free from cancer progression for at least three months. Two patients with advanced hormone and chemotherapy refractory prostate cancer experienced a decrease in levels of prostate specific antigen following treatment with Apra, with one patient being free from disease progression for 5.5 months. Four of nine mesothelioma patients had disease stabilization or regression. One of these patients had a partial response lasting six months, and a patient with advanced ovarian cancer remained free of disease progression for nine months. Apra was well tolerated, with some patients experiencing flushing or mild nausea. The dose limiting side effect was fatigue. There was no bone marrow suppression or hair loss observed, nor was there any incidence of death related to Apra treatment.

The Company began a Phase II efficacy trial for Apra among patients with advanced hormone and chemotherapy refractory prostate cancer in the fourth quarter of 1998. The new trial is an open label efficacy study among patients with advanced prostate cancer who have failed therapy with hormonal agents and at least one conventional chemotherapeutic agent. Eighty patients will be randomized to either the best dose and regimen determined in the Phase I Memorial Sloan Kettering trial (455mg/M/2/ daily for 3 days once every 21 days) or to the same total dose administered once weekly for three weeks. Slowing of the rate of disease progression is the primary endpoint of the study. Enrollment is expected to be completed in the second half of 1999. A consortium of eight leading prostate cancer research and treatment centers in the United States will conduct the trial. Additionally, the Company anticipates initiating a Phase II trial for soft tissue sarcoma in the first half of 1999 followed by a Phase II trial of Apra alongside conventional chemotherapy for lung cancer. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes."

Mechanism of Action. Apra's unique mechanism of action of tumor cell killing is believed to result from the effects it has on tumor cell phospholipids. Unlike normal growing cells, such as bone marrow cells, tumor cells overproduce PAs through the activation of several enzymes such as phosphatidylcholine phospholipase-D ("PC-PLD") and an isoform of lysophosphatidic acid acyltransferase (LPAAT-^) first cloned from humans by cti scientists. Apra appears to enhance the processing of tumor cell phospholipids by means of PA to another phospholipid, phosphatidylinositol ("PI"), in such quantities as to lead to tumor cell death. Because of its unique structure and mechanism of action, Apra does not appear to be susceptible to multidrug resistance. Scientists at cti have cloned PC-PLD, LPAAT-^ and additional enzymes involved in the conversion of PA to PI in order to explore further the mechanism of Apra. Two of these enzymes appear to be unique targets for anti-cancer drug development. The Company has therefore established high throughput assays using these phospolipid metabolizing enzymes to identify new therapeutic agents in cancer. See "--Proprietary Drug Discovery Technology."

PG-TXL (CT-2103)

PG-TXL (polyglutamate-paclitaxel) is a water-soluble form of the world's most widely used cancer drug, paclitaxel, which is marketed under the brand name Taxol(R). The Company believes PG-TXL, by selectively targeting paclitaxel to tumor tissue, may have enhanced tumor fighting capabilities and be more easily tolerated by patients than Taxol.

The Company's development strategy for PG-TXL is to perform initial tests of the compound in patients with breast, ovarian, and lung cancer who have not had prior therapy with Taxol and among those patients whose cancers have become Taxol resistant. Phase I studies are planned in the UK and will focus on these patient groups. The Company anticipates initiating a Phase I trial sponsored by the Cancer Research Campaign in the United Kingdom late in the second half of 1999. In addition to providing information on the safety, tolerability and pharmacology of PG-TXL, this Phase I trial may also provide anti-tumor activity data in patients with tumors known to be responsive to Taxol. The Company believes this data may permit the initiation of a Phase II/III efficacy study in the United States in 2001.

Preclinical Studies. In preclinical testing, PG-TXL showed fewer side effects and significantly improved anti-tumor activity when compared to Taxol. This was achieved by binding paclitaxel (the active ingredient of Taxol) to

the polymer, polyglutamate, which allowed significantly more paclitaxel to be delivered to tumor cells and less to normal tissues, thereby averting the toxic side effects of the paclitaxel compound. In preclinical trials, the polymer-drug combination concentrated in tumor tissue, resulting in the complete regression of ovarian and breast cancer in animal models, in contrast to Taxol, which merely delayed tumor growth.

Mechanism of Action. Tumors contain blood vessels with fenestrations, or "windows," which make these vessels leaky. These abnormal vessels can act like a strainer, trapping large molecules such as the polyglutamate polymers as they circulate in the bloodstream. In contrast, the conjugates do not enter normal tissues because the blood vessels in normal tissues do not contain fenestrations. The polymers are predominately confined to the

bloodstream until they are degraded and excreted by the kidneys. If loaded with a chemotherapeutic drug such as paclitaxel, the polyglutamate carrier unloads its cancer-killing agent at the tumor site, delivering a larger dose directly to the tumor while largely sparing normal tissue its toxic side effects. Polyglutamate technology may also hold promise in improving the safety and efficacy of other chemotherapies including camptothecin, a cancer drug widely used for colon cancer.

SC-7

SC-7 is the lead compound in a novel class of oral, synthetic, small molecule copper-chelating agents that inhibit the growth of new blood vessels in tumors, a process termed "angiogenesis." Tumors produce a variety of growth factors that induce new blood vessels to form and deliver the nutrients that the tumors need to grow and spread. A new approach to anti-tumor therapy involves development of agents to inhibit angiogenesis, thus starving tumors of oxygen and nutrients needed for growth. However, because angiogenesis may be stimulated by more than one tumor-produced growth factor (e.g., FGF, VEGF, and SPARC peptide), therapeutic agents which target just one angiogenic factor are likely to have limited effectiveness. Furthermore, current approaches being developed to inhibit angiogenesis use protein therapeutics, which are costly to manufacture and must be given by injection, both of which pose significant obstacles to long-term administration. The Company believes that to be effective, anti-angiogenic therapies will be capable of being administered easily and on a long-term basis to patients at high risk for disease recurrence following primary cancer treatment.

SC-7 specifically binds to ("chelates") copper, which is an essential co-factor of tumor angiogenic factors. New blood vessel growth in tumors requires stimulatory factors that are inactive unless they bind to copper. By tightly binding to extracellular copper and preventing its association with angiogenesis factors, SC-7 has anti-angiogenic and anti-tumor activity in a variety of animal models. Preliminary studies demonstrate that, aside from the known and controllable effects of copper depletion, SC-7 is non-toxic. SC-7 is a synthetic, small molecule that can be manufactured less expensively than potentially competing protein products and, unlike these agents, SC-7 may be administered to patients orally.

The Company plans to evaluate preclinical toxicology and pharmacology of SC-7 and then determine whether to license and enter development of SC-7 by the third quarter of 1999.

INFLAMMATORY DISEASE

Acute lung injury ("ALI") results from an acute inflammatory condition that is precipitated by a wide variety of conditions and is caused by inflammatory and oxidative injury to the epithelial barrier cells which line the respiratory tract. ALI results in a requirement for mechanical ventilation with high concentrations of oxygen which, in itself, causes further lung injury. More than one million patients are at risk each year in the United States for developing ALI. When severe, ALI is termed Acute Respiratory Distress Syndrome ("ARDS"). Approximately 30% to 40% of patients who develop ARDS will die. There are no specific therapies to prevent or treat the estimated 150,000 new cases of ARDS diagnosed each year.

In addition to its potential oncology applications, LSF is also under investigation by cti as an agent to prevent or reduce mortality among patients with ALI and ARDS who require mechanical ventilation and high concentrations

of inspired oxygen. The mechanisms underlying the toxicity to gastrointestinal barrier cells observed in the oncology setting may also operate to cause the toxicity to respiratory barrier cells observed in the critical care setting. The Company's development strategy for LSF in critical-care applications is to target patient populations at high risk for developing ALI and ARDS, where early intervention is feasible and clinically meaningful endpoints can be assessed after relatively short (14-21 days) duration of drug treatment.

Clinical Trials. The Company has previously completed a multi-center, randomized double blind placebo controlled Phase II feasibility study of LSF among 13 patients suffering from septic shock which examined the safety and pharmacokinetics of LSF given to critically ill patients. Of the 12 patients evaluable for endpoint analysis, the improvement from baseline in median multi-organ failure scores experienced by LSF recipients was

40 percentage points greater than the improvement experienced by placebo recipients. One hundred percent (100%) of patients receiving LSF survived to day 28 compared to 67 percent (67%) of placebo recipients.

In the first quarter of 1997, the NHLBI, through its ARDS Network, notified the Company that after reviewing the preclinical and clinical data to date, it had selected LSF for investigation in a multi-center, double blind placebo controlled pivotal Phase II/III trial among patients experiencing ALI. The ARDS Network was established by the NHLBI in cooperation with the FDA and the National Institutes of Health to accelerate the investigation and approval of novel therapies for ALI. The pivotal Phase II/III trial, which began in the first quarter of 1998, will examine the effect of a 3 mg/kg dose of LSF on early (day 28) mortality among 800 patients who develop ALI and ARDS. In March, the Company expects to complete enrollment of the first 200 patients in a pivotal Phase II/III trial for LSF among patients with ALI and/or ARDS. During the first half of 1999, interim data on these first 200 patients will be analyzed by a DSMB established through the NHLBI. Based on differences in mortality, the DSMB will recommend whether the trial should continue enrollment or be terminated. If successful in achieving the study's primary end point, the Company believes the design of this trial and NHLBI sponsorship, including its providing for a majority of the direct patient costs, would provide a cost-effective investigation of LSF expansion into this patient population. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes."

Mechanism of Action. Preclinical animal studies have shown that following exposure to high levels of inspired oxygen or following other causes of systemic oxidative injury that target the lung (e.g. hemorrhagic shock and severe bacterial infections), LSF can protect against multiple aspects of lung injury through interruption of stress-activated pathways. See "--Oncology--Lisofylline--Mechanism of Action." In animal models, treatment of LSF preserved the integrity of the cells lining the respiratory tract, preventing the undesired movement of proteins and fluids into the lung air spaces, and preserving the ability of the lung to transfer oxygen normally.

In the process of preserving lung function, LSF decreased the pool of oxidizable and oxidized lipids and the activation of SAPs, as well as subsequent production of multiple inflammatory cytokines. The Company believes that these biochemical effects of LSF may represent a critical upstream point of intervention in the evolution of ARDS.

IMMUNE DISEASE

The Company is investigating a class of novel compounds which, like LSF, inhibit the differentiation of Th1 lymphocyte cells and which have been identified for potential use in the treatment of immune diseases. Some unique aspects of the biochemical inhibitory effects of these compounds have been shown on specific T cell proteins which act as nuclear transcription factors, thus suggesting a novel approach to regulating immune-mediated inflammation in target diseases or processes such as multiple sclerosis, graft versus host disease and organ transplant rejection. In vitro studies of liver cell metabolism have suggested that some of these compounds may be capable of being administered orally and on a long-term basis to patients because of greater metabolic stability than LSF. The Company expects to identify a lead oral drug candidate for clinical investigation in 1999.

METABOLIC DISEASE

The Company believes it can leverage its enabling oxidized lipid and phospholipid technologies to identify opportunities in other disease states where elevated levels of oxidized lipids may play an important role in the pathogenesis and clinical manifestations of disease. Free fatty acids and oxidized lipids have been reported to be elevated in a variety of metabolic and cardiovascular diseases. In diabetes, free fatty acids and oxidized lipids have been associated with the destruction of pancreatic islet cells (the cells responsible for insulin production) in Type I, juvenile onset diabetes, and are believed to be responsible for development of resistance to insulin and its ability to lower blood sugar in Type II, adult onset diabetes. In addition, oxidized lipids have been linked to the glycosylation of proteins resulting in "advanced glycosylation end products," which are believed to contribute to the blood vessel damage leading to the heart disease, kidney disease and blindness that accompany diabetes.

In 1995, the Company established a research collaboration with the City of Hope Medical Center ("City of Hope"), a leading diabetes research and treatment center, utilizing the Company's proprietary technologies and drug prototypes to investigate the role of specific forms of free fatty acids and oxidized lipids and phospholipids in the development of diabetes and its complications. Company scientists and their collaborators have demonstrated that agents like LSF, which reduce free fatty acids and oxidized lipids, can significantly restore blood sugar utilization by the body and reduce the abnormally elevated blood sugar in diabetic animal models. Based upon the results of this collaboration, in January 1998, the Company entered into an agreement with City of Hope to form a joint venture to discover and develop a new class of drugs to treat diabetes and its complications. Under the terms of the agreement, the Company is funding the first two years of the venture and providing expertise in drug discovery and technology in oxidized lipid chemistry. City of Hope contributed its rights to technology for a putative novel human enzyme, the human leukocyte 12-Lipoxygenase (12-LO), for which it has identified a partial sequence. The enzyme is believed to be responsible for generating oxidized lipids that may be associated with the development of the immunological vascular complications of diabetes. City of Hope is also providing expertise and services in cellular analysis, animal models and clinical trials. The Company holds a 70% interest in the joint venture and City of Hope holds 30%.

PROPRIETARY DRUG DISCOVERY TECHNOLOGY

The Company's proprietary drug discovery technology consists of four components: (1) analytical technology for quantitative measuring of specific species of oxidized lipids and phospholipids, (2) cloning of critical lipid regulatory enzymes, (3) using the cloned enzymes and drug candidate probes to validate targets and to develop high throughput screens capable of analyzing large chemical libraries, and (4) novel linker chemistry to develop directed mini-diversity chemical libraries.

The Company has developed proprietary technology that enables it to determine the effects of a variety of physical and chemical stimuli (such as radiation and chemotherapy), growth factors, hormones, cytokines and oncogene-induced events on the production of oxidized lipids, various species of phospholipids and the enzymes which control their production and degradation. Standard techniques for measuring oxidized lipids and phospholipids are time consuming and often inaccurate. Moreover, separation of specific species of such lipids is difficult. The Company possesses several proprietary lipid analytical technologies which can identify different oxidized lipids and different species of phospholipids produced in response to a variety of stimuli in various cell types. These technologies provide a qualitative and quantitative methodology to examine the effects of cti compounds on a variety of such lipids that are involved in normal and/or pathological functions in certain cells.

The Company has also developed certain proprietary technologies that permit the qualitative and quantitative analysis of a variety of complex lipids for their content of oxidizable and oxidized lipid components. The Company believes that such technologies may be utilized in conjunction with its chemical libraries and novel cloned enzymes to elucidate the relationship of such complex oxidized lipids to conditions such as cancer and inflammatory and immune diseases. From these studies, the Company intends to identify additional novel targets for future drug development.

To this end, Company scientists have cloned several of the critical enzymes that produce or metabolize (degrade) types of PAs. The following table lists some of the human enzymes cloned by the Company and their proposed biological effects in cancer and inflammatory disease:

CLONED ENZYME	BIOLOGICAL EFFECT
PC-PLD (phosphatidylcholine-phospholipase-D)	Cancerous transformation, angiogenesis
LPAAT (lyso-PA acyltransferase)	Stress activated protein kinase ("SAPK") activation; release of TNF-^ and Interleukin-6
CDS (cytidyl diphosphate-diacylgycerol synthase)	SAPK activation; release of TNF-^ and Interleukin-6
PAP (phosphatidic acid phosphohydrolase)	Glycerolipid synthesis, signal transduction

Through application of genetic, molecular and biochemical techniques, the Company may be able to determine the relationship between the types of PAs controlled by these enzymes and abnormal cellular functions which are thought to be related to disease processes. The Company believes that its oxidized lipid technologies and PA modulating enzymes, when coupled with high throughput screens and combinatorial diversity libraries, may provide it with unique therapeutic targets for drug development for oncological, inflammatory and immune diseases.

COLLABORATION AND LICENSING ARRANGEMENTS

Johnson & Johnson

In November 1996, cti entered into a Collaboration and License Agreement (the "Collaboration Agreement") with Ortho Biotech, Inc. and the R.W. Johnson Pharmaceutical Research Institute (a division of Ortho Pharmaceutical Corporation) each of which are wholly-owned subsidiaries of Johnson & Johnson (collectively, "Johnson & Johnson") for the joint development and commercialization of LSF for the BMT indication. Under the terms of the Collaboration Agreement, Johnson & Johnson agreed, subject to certain termination rights, to fund up to $12,000,000 of the company's budgeted BMT development costs per year for each of 1997 and 1998. In September 1997, Johnson & Johnson exercised an option under the Collaboration Agreement to expand its participation in development of LSF to include the AML indication. In July 1998, after reviewing the results of the Company's Phase III clinical trial for LSF among patients receiving BMT from related donors, in which the primary endpoints were not met, Johnson & Johnson reached an agreement in principle with the Company to revise the Collaboration Agreement. On November 16, 1998, the Company and Johnson & Johnson formally amended the Collaboration Agreement. Under the terms of the amended agreement, Johnson & Johnson and cti agreed that Johnson & Johnson would pay to the Company $13.1 million for development cost reimbursements for BMT and AML for the year ending December 31, 1998, and that Johnson & Johnson would have no further development or commercialization responsibilities under the Collaboration Agreement. After reviewing both the interim data from the Company's pivotal Phase II/III trial for LSF in patients with acute lung injury and acute respiratory distress syndrome and the results of the Company's Phase III trial for LSF following induction chemotherapy for AML, Johnson & Johnson may elect to resume responsibility for the development and commercialization of LSF subject to certain additional payments upon resumption of its obligations. If Johnson & Johnson does not elect to resume development activities, then the Company will be free to license LSF to other third parties. As of December 31, 1998, the Company had recorded approximately $40.8 million in equity payments, license and milestone fees, and development cost reimbursements with Johnson & Johnson.

BioChem Pharma

In March 1995, the Company entered into collaboration and supply agreements with BioChem Pharma for the development and commercialization of LSF and Apra in Canada. Under this collaboration agreement, BioChem Pharma will be

responsible for obtaining regulatory approval for LSF and Apra in Canada. Although BioChem Pharma will have no obligation to conduct any research and development activities, it will have the right to have cti perform clinical trials in Canada at BioChem Pharma's expense. BioChem Pharma will have the exclusive right to commercialize LSF and Apra in Canada, subject to the payment of royalties to cti. The Company will also receive payments under the collaboration agreement if certain milestones are achieved. BioChem Pharma may terminate this agreement with respect to any product at any time for any reason upon 30 days' notice. In connection with the collaboration agreement, BioChem Pharma made an equity investment in the Company of $2.5 million. As of December 31, 1998, the Company has recorded $450,000 in milestone payments from BioChem Pharma.

City of Hope/cti Joint Venture

On January 5, 1998, the Company entered into an agreement with City of Hope National Medical Center to form a joint venture (Cell City, LCC) to discover and develop a new class of drugs to treat diabetes and its

complications. Under the terms of the agreement, the Company will fund the first two years of the venture and provide expertise in drug discovery and technology in oxidized lipid chemistry. City of Hope will contribute its rights to technology for a human enzyme, human leukocyte 12-Lipoxygenase ("12-LO"), which it has identified and partially sequenced. The enzyme is believed to be responsible for generating oxidized lipids that may be associated with certain immune diseases, cardiovascular disease and diabetes. City of Hope will also provide expertise and services in cellular analysis, animal models and clinical trials for applications in diabetes. The Company holds a 70% interest in the joint venture and City of Hope holds 30%.

PG-TXL Company, L.P.

On June 30, 1998, the Company entered into an agreement with PG-TXL Company, L.P. granting the Company an exclusive worldwide license for the rights to PG-TXL, a water-soluble form of the cancer drug, Taxol(R) and to all potential uses of PG-TXL Company, L.P.'s polymer technology. Under the terms of the agreement, the Company acquired the rights to fund the research, development, manufacture, marketing and sale of anti-cancer drugs developed using this polymer technology. The Company will be obligated to make milestone payments upon the attainment of significant achievements, as defined in the agreement. The Company also granted warrants to purchase shares of the Company's common stock to PG-TXL Company, L.P. The Company is obligated to meet certain development requirements by June 30, 2002 to maintain exclusive license rights.

SynChem Research, Inc.

On December 11, 1998, the Company entered into an exclusive option agreement with SynChem Research, Inc. ("SynChem") to obtain an exclusive worldwide license (the "SynChem License") to a class of synthetic, small molecule, copper-chelating compounds which are inhibitors of tumor angiogenesis. The Company's option to acquire the SynChem License shall be exercisable at the end of a six-month evaluation period upon the payment of an initial license fee. Under the terms of the option agreement, the SynChem License will provide that the Company will fund initial research studies to evaluate the potential of the compounds and SynChem will provide the compounds.

PATENTS AND PROPRIETARY RIGHTS

The Company has dedicated significant resources to protect its intellectual property. As of March 15, 1999, in the United States, the Company has rights in 66 issued patents (49 of which are domestic U.S. patents and 17 of which are patents granted in various jurisdictions globally, including Australia, Europe, Canada, Japan, New Zealand, Mexico, South America, and Switzerland) and 137 published, allowed or pending patent applications, including divisional patent applications and continuation-in-part patent applications, covering a variety of new chemical entities, pharmaceutical compositions, synthetic processes, methods of use, discovery research tools and diagnostics. Five of the issued patents in which the Company has rights cover the pharmaceutical composition, commercial manufacturing process steps and oncology and anti-inflammatory methods of use for LSF, and 23 of the Company's published, allowed or pending patent applications cover other methods of use

for LSF. One issued patent covers the chemical compound and pharmaceutical compositions of Apra and CT-3578. Sixteen of the Company's pending applications are directed to the PG-TXL chemical entity and pharmaceutical composition, and methods of use. The Company intends to file additional patent applications, when appropriate, with respect to improvements in its core technology and to specific products and processes that it develops. Generally it is the Company's policy to file foreign counterpart patent applications in countries with significant pharmaceutical markets and a patent granting and enforcement infrastructure. As of March 15, 1999, the Company had filed 98 foreign national patent applications in 22 countries (excluding specific contracting states of the Eurasian Patent Convention) and the European Patent Offices, including 20 counterpart foreign national patent applications of certain of its issued U.S. patents and allowed or pending U.S. patent applications for LSF; 14 counterpart foreign national patent applications of certain of its issued U.S. patents and published, allowed or pending U.S. patent applications for Apra, CT-3578 and 14 counterpart foreign national patent applications of certain pending U.S. patent applications for PG-TXL. There can be no assurance that any patents will issue from

any present or future applications or, if patents do issue, that such patents will be issued on a timely basis or that claims allowed on issued patents will be sufficient to protect the Company's technology. In addition, there can be no assurance that the patents issued to the Company will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide proprietary protection or commercial advantage to the Company. With respect to such issued U.S. patents or any patents that may issue in the future, there can be no assurance that they will effectively protect the technology involved, foreclose the development of competitive products by others or otherwise be commercially valuable.

The commercial success of the Company will also depend in part on the Company's neither infringing patents or proprietary rights of third parties nor breaching any technology licenses which relate to the Company's technologies and potential products. In general, the development of therapeutic products is intensely competitive and many pharmaceutical companies, biotechnology companies, universities and research institutions have filed and will continue to file patent applications and receive patents in this field. If patents are issued to other entities that contain competitive or conflicting claims with respect to the technology and compounds pursued by cti and such claims are ultimately determined to be valid, no assurance can be given that cti would be able to obtain licenses to these patents at a reasonable cost or develop or obtain alternative technology or compounds.

The Company is aware of a patent belonging to third parties that could be interpreted to compromise the Company's freedom to sell LSF in the United States for certain non-oncology applications. The Company believes, upon advice of its patent counsel, that any such interpretation is relevant only in connection with the Company's use of LSF in preventing lung injury following traumatic injury (such as ALI and ARDS) or sepsis; and, irrespective of such interpretation, that the Company's planned manufacture, sale or use of LSF as described in this Form 10-K does not infringe any valid claim of such third-party patent. If such third-party patent rights were interpreted to limit the use of LSF, the Company may be required to obtain a license from such parties. There can be no assurance that any such license would be available to the Company upon reasonably acceptable terms, if at all. The Company could also face significant costs associated with any litigation relating to such patent. See "--Factors Affecting Our Operating Results--We Must Be Able to Protect Our Intellectual Property."

The Company has sought and intends to aggressively seek patent protection in the United States, Europe and Japan to protect any products that it may develop. The Company also intends to seek patent protection or rely upon trade secrets to protect certain of its enabling technologies that will be used in discovering and evaluating new drugs which could become marketable products. However, there can be no assurance that such steps will effectively protect the technology involved. To protect any such trade secrets and other proprietary information, cti relies on confidentiality and material transfer agreements with its corporate partners, employees, consultants, outside scientific collaborators and sponsored researchers and other advisors. There can be no assurance that these agreements will not be breached, that the Company will have adequate remedies for breach or that the Company's trade

secrets will not otherwise become known or independently discovered by competitors. The Company also has members of its Scientific Advisory Board and Clinical Advisory Board, its consultants and, in most cases, its employees enter into agreements requiring disclosure to cti of ideas, developments, discoveries or inventions conceived during employment or consulting and assignment to cti of proprietary rights to such matters related to the business and technology of cti.

The extent to which efforts, including interference proceedings, by others will result in patents and the effect on cti of the issuance of such patents is unknown. There has been significant litigation in the pharmaceutical and biotechnology industry regarding patents and other proprietary rights, and although the Company is not currently engaged in litigation regarding intellectual property matters, from time to time the Company sends and receives communications to and from third parties regarding such matters. To enforce any patents issued to the Company or determine the scope, validity or priority of other parties' proprietary rights, the Company may have to engage in litigation or interference or other administrative proceedings, which would result in substantial cost to, and diversion of efforts by, the Company. There can be no assurance that the Company's issued or licensed patents would be held valid. An adverse outcome in any litigation or interference or other administrative

proceeding could subject the Company to significant liabilities to third parties, require disputed rights to be licensed from third parties or require the Company to cease or modify its use of such technology, any of which could have a material adverse effect on the Company's business, prospects, financial condition, liquidity and results of operations.

There can be no assurance that others will not independently develop substantially equivalent proprietary information or otherwise obtain access to cti's know-how or that others will not be issued patents which may prevent the sale of Company products or require licensing and the payment of significant fees or royalties by cti for the pursuit of its business. Trade secrets and other unpatented proprietary information of cti may be difficult to protect, notwithstanding confidentiality agreements with cti's employees and consultants. See "--Factors Affecting Our Operating Results--We Must Be Able to Protect Our Intellectual Property."

MANUFACTURING

The Company currently does not have the internal facilities to manufacture products under current Good Manufacturing Practices ("GMP"s) prescribed by the FDA. The Company seeks to develop such capacity through manufacturing relationships. The Company has qualified and selected manufacturers which it believes will comply with GMPs and other regulatory standards. LSF is currently being manufactured by one such third-party vendors on a fee for service basis. In January 1997 the Company entered into a supply agreement with ChiRex, Ltd. ("ChiRex"), a British manufacturer of pharmaceutical intermediates and active ingredients, for the manufacture and supply of LSF and corresponding intermediate compounds. The agreement will expire on December 31, 2001, but may be terminated by cti upon 12 months written notice prior to such date. On October 16, 1998, the Company entered into a Pre-Validation Agreement with ChiRex which expands the scope of the services provided by ChiRex to include the manufacture and testing of pre-validation batches of LSF and a key intermediary compound.

The Company currently uses ChiRex for the manufacture of LSF bulk drug and uses three suppliers for clinical trial quantities of the finished drug product. Following commercial launch of LSF, the Company expects that it will continue to use ChiRex to manufacture LSF bulk drug. If Johnson & Johnson elects to resume its full development and commercialization activities with respect to LSF, the Company anticipates that Johnson & Johnson will be the primary supplier of finished LSF drug product following commercial launch. Under the terms of the amended Collaboration Agreement, Johnson & Johnson has agreed to provide finished drug product for the Company for 24 months following complete termination by Johnson & Johnson of the Collaboration Agreement. Therefore the Company anticipates that Johnson & Johnson would be the primary supplier of finished LSF drug product for at least the next two years regardless of whether Johnson & Johnson resumes its full development and commercialization activities under the Collaboration Agreement. See "--Collaboration and Licensing Arrangements--Johnson & Johnson."

The Company has established a quality control and quality assurance program, including a set of standard operating procedures and specifications, designed to ensure that the Company's products are manufactured in accordance with GMPs and other applicable domestic and foreign regulations. However, the Company is and expects to continue to be dependent upon contract manufacturers such as ChiRex to comply with such procedures and regulations. There can be no assurance that these manufacturers will meet the Company's requirements for quality, quantity or timeliness. While LSF has been manufactured on a commercial scale, no assurance can be given that the Company or such other third-party contract manufacturers, will be able to make the transition to commercial production.

If the Company develops products with commercial potential in addition to LSF, cti will need to develop additional manufacturing resources, and may seek to enter into additional collaborative arrangements with other parties which have established manufacturing capabilities or may elect to have a third party such as ChiRex manufacture its products on a contract basis. The Company is a party to another such agreement with a third-party vendor to furnish Apra bulk drug substance for future clinical studies. If cti is unable to enter into collaborative relationships or to obtain or retain third-party manufacturing on commercially acceptable terms, it

may be delayed in its ability to commercialize its products or may not be able to commercialize its products as planned. The Company will be dependent upon such collaborators or third parties to supply it in a timely manner with products manufactured in compliance with GMPs or similar standards imposed by foreign regulators. Collaborators and contract manufacturers may violate GMPs, and the FDA has intensified its oversight of drug manufacturers. There can be no assurance that the FDA would not take action against a collaborator or a contract manufacturer who violates current GMPs. Such actions may include requiring such collaborator or contract manufacturer to cease manufacturing activities. See "--Factors Affecting Our Operating Results--We Rely on Third-Party Manufacturers."

MARKETING

The Company intends to develop its own sales and marketing infrastructure in the United States to commercialize its portfolio of oncology products either on its own or, to the extent the Company enters into any commercialization arrangements, with collaborators. With respect to the commercialization of its oncology products outside of the United States, and with respect to the worldwide commercialization of its portfolio of products for inflammatory and immune disease, the Company's strategy is to pursue commercialization arrangements with collaborators.

The Company has no experience in marketing, sales or distribution. The Company believes, however, that the United States oncology market is accessible by a limited marketing staff and field sales organization. This market is highly concentrated. It is comprised primarily of the approximately 5,000 physicians who order the vast majority of cancer therapeutics. The Company's strategy for commercializing LSF for its oncology applications is to establish a strategic alliance with a corporate partner that has an established, skilled, and experienced field sales organization and to collaborate with that partner in the areas of marketing strategy and clinical liaison. The Company anticipates that such an arrangement would retain certain rights of co-promotion and would also provide for the establishment of a small cadre of cti field sales representatives who would promote LSF in the field of oncology. In connection with the launch and commercialization of LSF for other, more broad-base indications, the Company expects to establish an alliance with a corporate partner considered to be well-regarded in the field and possessing a well-established franchise with the appropriate medical specialists. Under such a scenario, it is unlikely that the Company would seek to retain co-promotion rights.

If the Company develops products with commercial potential in addition to LSF, cti may need to develop marketing and additional sales resources, and may seek to enter into collaborative arrangements with third parties which have established marketing and sales capabilities or may choose to pursue the commercialization of such products on its own. There can be no assurance that the Company or, to the extent the Company enters into any commercialization arrangements with any other third parties, such other third parties, will

establish adequate sales and distribution capabilities or be successful in gaining market acceptance for products. There can be no assurance that cti will enter into any such alliances or that the terms of any such alliances will be favorable to cti. See "--Factors Affecting Our Operating Results--We Lack Sales and Marketing Capabilities."

COMPETITION

Competition in the pharmaceutical and biotechnology industries is intense. The Company faces competition from a variety of sources, both direct and indirect. The Company believes there may be several pharmaceutical or biotechnology companies that focus on cell membrane lipids in regulating cellular processes. Many other companies compete indirectly with cti for the same therapeutic indications but with different approaches such as focusing, for example, on signal transduction, cell receptor technology, transcription factors and gene therapies. The Company also competes with other large pharmaceutical companies that produce and market synthetic compounds and with other specialized biotechnology firms in the United States, Japan, Europe and elsewhere. Many of the Company's existing or potential competitors have substantially greater financial, technical and human resources than the Company and may be better equipped to develop, manufacture and market products. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and established biotechnology companies. Many of these competitors have significant products that have been approved or are in development and operate large, well funded research and development programs.

The Company expects to encounter significant competition for the principal pharmaceutical products it plans to develop. Companies that complete clinical trials, obtain required regulatory approvals and commence commercial sales of their products before their competitors may achieve a significant competitive advantage. Accordingly, the relative speed with which the Company and any future collaborators can develop products, complete preclinical testing and clinical trials and approval processes, and supply commercial quantities of the products to the market are expected to be important competitive factors. A number of biotechnology and pharmaceutical companies are developing new products for the treatment of the same diseases being targeted by cti. In some instances, such products have already entered late-stage clinical trials or received FDA approval.

Significant levels of research in biotechnology, medicinal chemistry and pharmacology occur in academic institutions, governmental agencies and other public and private research institutions. These entities have become increasingly active in seeking patent protection and licensing revenues for their research results. They also compete with cti in recruiting and retaining skilled scientific talent.

The Company believes that its ability to compete successfully will be based on its ability to create and maintain scientifically advanced technology, develop proprietary products, attract and retain scientific personnel, obtain patent or other protection for its products, obtain required regulatory approvals and manufacture and successfully market its products either alone or through outside parties. Many of cti's competitors have substantially greater financial, marketing and human resources than cti. The Company will continue to seek licenses with respect to technology related to its field of interest and may face competition with respect to such efforts. There can be no assurance that the Company's competitors will not develop more effective or more affordable products, or achieve earlier patent protection or product commercialization than the Company. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes," "--Our Product Development Programs Are In an Early Stage," "--We Must Be Able to Protect Our Intellectual Property," and "--Competition Is Intense."

GOVERNMENT REGULATION

Drug Approval Process

Regulation by governmental authorities in the United States and other countries is a significant factor in the development, production and marketing of cti's proposed drug products. All of cti's products will require regulatory approval by governmental agencies prior to commercialization. In particular, new drugs are subject to rigorous preclinical and clinical testing and other

approval procedures in the United States by the FDA and similar health authorities in foreign countries. Various federal statutes and regulations also govern or influence the testing, manufacturing, quality control, safety, labeling, storage, record-keeping and marketing of such products. The process of obtaining these approvals and the subsequent compliance with appropriate federal and foreign statutes and regulations require the expenditure of substantial resources. Any failure by cti or its collaborators or licensees to obtain, or any delay in obtaining, regulatory approval could adversely affect the marketing of any product that cti may hope to develop and its ability to receive revenues therefrom. The Company has neither applied for nor received regulatory approval to market any products.

The steps required before a new drug may be marketed in the United States include: (1) preclinical laboratory, in vivo and formulation studies, (2) the submission to the FDA of an Investigational New Drug application ("IND"), which must become effective before human clinical trials may commence, (3) adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug in its intended indication, (4) the submission of, for non-biologic drugs, an NDA to the FDA, and (5) the FDA approval of the NDA.

In order to clinically test, produce and market products for diagnostic or therapeutic use, a company must comply with safety and efficacy requirements established by the FDA and comparable agencies in foreign countries. Before beginning human clinical testing of a potential new drug, a company must file an IND, which must become effective before clinical trials may begin, and receive clearance from the FDA. The IND is a summary of the preclinical studies which were carried out to characterize the drug, including toxicity and safety

studies, as well as an in-depth discussion of the human clinical studies which have been conducted and those which are being proposed. Approval of a local institutional review board ("IRB") and informed consent of trial subjects are also required.

Human clinical trials are typically conducted in three sequential phases which may overlap. Phase I involves the initial introduction of the drug into healthy human subjects or patients where the product is tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II involves studies in a limited patient population to (1) identify possible adverse effects and safety risks, (2) determine the efficacy of the product for specific, targeted indications, and (3) determine dosage tolerance and optimal dosage. When Phase II evaluation demonstrates that the product may be effective and has an acceptable safety profile, Phase III trials are undertaken to further evaluate dosage and clinical efficacy and to further test for safety in an expanded patient population at multiple clinical study sites. A pivotal Phase III trial is an adequate and well-controlled study which provides a primary basis for determining whether there is "substantial evidence" to support the claims of safety and effectiveness for new drugs and forms a critical component of an NDA. Usually two well-controlled clinical studies are required for approval of a new drug. The regulatory authority may suspend clinical trials at any point in this process if it concludes that clinical subjects are being exposed to an unacceptable health risk, that the study is not being conducted in compliance with applicable regulatory requirements, or for other reasons. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes," and "--Our Product Development Programs Are In an Early Stage."

The results of product development, preclinical studies and clinical studies are submitted to the FDA as part of an NDA for approval of the marketing and commercial shipment of the product. Other information is also required in the NDA, including manufacturing and labeling information. The FDA may deny approval of an NDA if applicable regulatory criteria are not satisfied, or may require additional data. Even if such data is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Once issued, a product approval may be withdrawn if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products which have been commercialized, and it has the authority to prevent or limit further marketing of a product based on the results of these post-marketing programs. Any subsequent changes to the product, labeling or manufacturing may require additional FDA approval.

Satisfaction of FDA requirements, or similar requirements by foreign regulatory agencies, typically takes several years and the time needed to satisfy them may vary substantially, based upon the type, complexity and novelty of the drug product. The effect of government regulation may be to delay or to prevent marketing of potential products for a considerable period of time and to impose costly procedures upon the Company's activities. There can be no assurance that the FDA or any other regulatory agency will grant approval for any products being developed by the Company on a timely basis, or at all. Success in preclinical or early stage clinical trials does not assure success in later stage clinical trials. Data obtained from preclinical and clinical activities are susceptible to varying interpretations which could delay, limit or prevent regulatory approval. If regulatory approval of a product is granted, such approval may impose limitations on the indicated uses for which a product may be marketed. Further, even if regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product, including withdrawal of the product from the market. Delay in obtaining or failure to obtain regulatory approvals would have a material adverse affect on the Company's business. Marketing the Company's products abroad will require similar regulatory approvals and is subject to similar risks. In addition, the Company is unable to predict the extent of adverse government regulations that might arise from future United States or foreign governmental action. See "--Factors Affecting Our Operating Results--There Is No Certainty of Positive Clinical Trial Outcomes," "--Our Product Development Programs Are In an Early Stage," and "--There Is No Assurance of FDA Approval."

The FDA has implemented accelerated review and approval procedures for certain pharmaceutical agents that have been studied for their safety and effectiveness in treating serious life-threatening or severely debilitating diseases, and that provide a meaningful therapeutic benefit to patients over existing treatments. Products intended

to remove a serious or life-threatening toxicity associated with cancer treatment may potentially qualify for review under these accelerated procedures. The FDA retains considerable discretion in determining eligibility for accelerated review and approval. Accordingly, the FDA could employ such discretion to deny eligibility of LSF as a candidate for accelerated review or require additional clinical trials or other information before approving LSF. In addition, the approval of a product under the accelerated approval procedures is subject to various conditions, including the requirement to verify clinical benefit in post-marketing studies and the authority on the part of the FDA to withdraw approval under streamlined procedures if such studies do not verify clinical benefit or under various other circumstances. The Company cannot predict the ultimate impact, if any, of the accelerated approval process on the timing or likelihood of FDA approval of LSF or any of its other potential products.

Facilities and manufacturing procedures used for the manufacture of products for clinical use or for sale must be operated in conformity with current GMP regulations, the FDA regulations governing the production of pharmaceutical products. The Company intends to operate its facilities or to arrange for the manufacture of products at facilities which are operated, as required, in accordance with GMPs where necessary; however, no assurance can be provided that such manufacture will successfully comply with GMPs. In addition, the FDA also regulates promotion, marketing and distribution of prescription drug products, particularly those subject to accelerated approval, and inspects drug manufacturers to evaluate compliance with regulatory requirements. Among other things, the FDA evaluates truthfulness and accuracy of materials submitted to it or otherwise prepared by a drug manufacturer, and may take legal or regulatory action against companies or their products if such materials contain any untrue statement of a material fact.

Before the Company's products can be marketed outside of the United States, they are subject to regulatory approval similar to that required in the United States, although the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country. No action can be taken to market any product in a country until an appropriate application has been approved by the regulatory authorities in that country. The current approval process varies from country to country, and the time spent in gaining approval varies from that required for FDA approval. In certain countries, the sales price of a product must also be approved. The

pricing review period often begins after market approval is granted. No assurance can be given that even if a product is approved by a regulatory authority, satisfactory prices will be approved for such product.

No assurance can be provided that the Company's INDs or NDAs will be successfully reviewed by the FDA, that accelerated approval will apply or that similar applications will be successfully reviewed by foreign regulatory authorities. Further, the FDA and foreign authorities may at any time take legal or regulatory action against a product or the Company if they conclude that cti has not complied with applicable laws and regulations or that earlier evaluations of a product's safety or effectiveness may not have been adequate or appropriate. Such action may include, but is not limited to, restrictions on manufacture and shipment of products, seizure of products, injunctions and civil and criminal penalties. The FDA's policies may change and additional government regulations may be promulgated which could prevent or delay regulatory approval of the Company's potential products. Moreover, increased attention to the containment of health care costs in the United States and in foreign markets could result in new government regulations which could have a material adverse effect on the Company's business prospects, financial condition, liquidity and results of operations. The Company is unable to predict the likelihood of adverse governmental regulation which might arise from future legislative or administrative action, either in the United States or abroad.

Third-Party Reimbursement and Health Care Reform

The commercial success of the Company's products under development will be substantially dependent upon the availability of government or private third-party reimbursement for the use of such products. There can be no assurance that Medicare, Medicaid, health maintenance organizations and other third-party payors will authorize or otherwise budget such reimbursement. Such governmental and third-party payors are increasingly challenging the prices charged for medical products and services. If the Company succeeds in bringing one or more products to market, there can be no assurance that such products will be viewed as cost-effective or that

reimbursement will be available to consumers or will be sufficient to allow the Company's products to be marketed on a competitive basis. Furthermore, federal and state regulations govern or influence the reimbursement to health care providers of fees and capital equipment costs in connection with medical treatment of certain patients. In response to concerns about the rising costs of advanced medical technologies, the current administration of the federal government has publicly stated its desire to reform health care, including the possibility of price controls and revised reimbursement policies. There can be no assurance that actions taken by the administration, if any, with regard to health care reform will not have a material adverse effect on the Company. If any actions are taken by the administration, such actions could adversely affect the prospects for future sales of the Company's products. Further, to the extent that these or other proposals or reforms have a material adverse effect on the Company's ability to secure funding for its development or on the business, financial condition and profitability of other companies that are prospective collaborators for certain of the Company's product candidates, the Company's ability to develop or commercialize its product candidates may be adversely affected. See "--Factors Affecting Our Operating Results--Uncertainty Regarding Third-Party Reimbursement and Health Care Cost Containment Initiatives May Impact Our Revenue."

Given recent government initiatives directed at lowering the total cost of health care throughout the United States, it is likely that the United States Congress and state legislatures will continue to focus on health care reform and the cost of prescription pharmaceuticals and on the reform of the Medicare and Medicaid systems. The Company cannot predict the likelihood of passage of federal and state legislation related to health care reform or lowering pharmaceutical costs. In certain foreign markets, pricing of prescription pharmaceuticals is already subject to government control. Continued significant changes in the United States' health care system could have a material adverse effect on the Company's business prospects, financial condition, liquidity and results of operations.

Environmental Regulation

In connection with its research and development activities and its

manufacturing materials and products, the Company is subject to federal, state and local laws, rules, regulations and policies governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain materials, biological specimens and wastes. Although the Company believes that it has complied with these laws, regulations and policies in all material respects and has not been required to take any significant action to correct any noncompliance, there can be no assurance that the Company will not be required to incur significant costs to comply with environmental and health and safety regulations in the future. The Company's research and development involves the controlled use of hazardous materials, including but not limited to certain hazardous chemicals and radioactive materials. Although the Company believes that its safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal 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. See "--Factors Affecting Our Operating Results--We Use Hazardous Materials."

HUMAN RESOURCES

As of March 15, 1999, cti employed 165 individuals (including 60 holding doctoral or other advanced degrees). In recruiting additional staff members, cti expects to receive continued input from its consultants and members of its Scientific Advisory Board and Clinical Advisory Board.

The Company's policy is to have each employee and consultant enter into an agreement which contains provisions prohibiting the disclosure of confidential information to anyone outside cti and, in most cases, requires disclosure to cti of ideas, developments, discoveries or inventions conceived during employment and assignment to cti of proprietary rights to such matters related to the business and technology of cti. The extent to which this policy will effectively protect cti's proprietary technology and trade secrets is unknown. See "--Patents and Proprietary Rights."

SCIENTIFIC ADVISORY BOARD

The Company has a Scientific Advisory Board and plans to make arrangements from time to time with other scientists to work with cti's management and the Scientific Advisory Board. Scientific Advisory Board members are expected to meet as a board with management and key scientific employees of cti on a semi-annual basis and in smaller groups or individually from time to time on an informal basis. The Scientific Advisory Board members assist cti in identifying scientific and product development opportunities, reviewing with management the progress of cti's specific projects, and recruiting and evaluating cti's scientific staff. Members of cti's Scientific Advisory Board are leaders in the fields of immunology, cell and molecular biology, and synthetic and medicinal chemistry.

Current Members of cti's Scientific Advisory Board include:

Michael R. Hanley, Ph.D. is the Chairman of cti's Scientific Advisory Board. He is a Professor, Department of Biological Chemistry, at the University of California, Davis School of Medicine. He is a noted authority in cell communication processes and proto-oncogenes, as well as an expert in phospholipid signaling mechanisms in the central nervous system focusing on regulation of neurotransmitter receptors. Dr. Hanley has authored over 80 manuscripts and has served as an editorial member for several journals, including Molecular and Cellular Neurobiology and Nature.

Lewis Cantley, Ph.D. is a noted authority in cellular biochemical signaling pathways that employ phosphatidyl inositol and its metabolites and is the discoverer of one of the most critical enzymes in those pathways, the PI3 Kinase. He is currently Professor of Cell Biology at Harvard Medical School and Chief of the Division of Signal Transduction in the Department of Medicine, Beth Israel Hospital, Boston and is the author of over 180 publications.

Edward A. Dennis, Ph.D. is the Vice Chair of Medical Biochemistry at the University of California, San Diego. He is a noted authority on phospholipases, cell signaling and phospholipid metabolism. Dr. Dennis serves on the Scientific Advisory Board and Management Committee of, and chairs the

Management Executive Board of, the Keystone Symposia. He sits on the Editorial Board of the Journal of Cellular Biochemistry and on the Publications Committee of the American Society for Biochemistry and Molecular Biology. He has authored over 185 manuscripts.

Edwin Krebs, M.D. is a Professor Emeritus, Department of Pharmacology and Biochemistry, at the University of Washington in Seattle and a Senior Investigator Emeritus at the Howard Hughes Medical Institute. He is a recognized authority on the mechanisms of action of second messengers, including protein kinases and phosphorylation reactions. He is the recipient of numerous awards and honors and has authored 297 manuscripts. In 1992, Dr. Krebs was awarded the Nobel Prize in Physiology of Medicine for his work on second messenger pathways.

L. Jackson Roberts, II, M.D. is an internationally recognized authority on the oxidative metabolism of polyunsaturated fatty acids. He is known for having identified PGD2 as the major mast cell lipid mediator and, more recently, for having originated the field of studying non-enzymatically-generated prostanoids, including the isprostanes and neuroprostanes. He is currently Professor of Pharmacology and Medicine at Vanderbilt University and is the author of over 170 publications.

The Company has entered into consulting agreements with each member of the Scientific Advisory Board. These agreements generally have a two-year term and may be terminated by either party upon 30 days' written notice. These agreements generally restrict the consultant from competing with cti during the term of the agreement. These agreements contain provisions prohibiting the disclosure of confidential information to anyone outside of cti and require disclosure to cti of ideas, developments, discoveries or inventions conceived during consulting and assignment to cti of proprietary rights to such matters related to the business and technology of cti. Each consultant is required to serve on cti's Scientific Advisory Board and provide related consulting services, as cti may reasonably request. Each Scientific Advisory Board member is paid either an annual fee or is compensated at market-competitive hourly rates and is granted an option to purchase Common Stock.

CLINICAL ADVISORY BOARD

The Company has a Clinical Advisory Board which meets regularly with cti's management and the Scientific Advisory Board and in smaller groups or individually from time to time on an informal basis. The Clinical Advisory Board members assist cti in determining its clinical regulatory strategy, interpreting clinical trial data and identifying optimal indications for its products. Members of cti's Clinical Advisory Board are leaders in the fields of hematology, oncology, immunology, cell and molecular biology, critical care and medicinal chemistry.

Current members of cti's Clinical Advisory Board include:

Donnall Thomas, M.D. is the Chairman of cti's Clinical Advisory Board. He is the former Associate Director of Clinical Research and presently a Professor Emeritus at the Fred Hutchinson Cancer Research Center. Dr. Thomas was a founding member of the FHCRC. His research has spanned a wide array of fields from radiation biology to developmental immunology, and from cancer causing genes to gene transfer therapies. For his pioneering work in BMT, Dr. Thomas was awarded the Nobel Prize for Medicine in 1990. Among the other honors awarded to Dr. Thomas in recognition of his medical research are the American Cancer Society Award for Distinguished Service in Basic Research and the Kettering Prize of the General Motors Cancer Research Foundation. He is a member of the U.S. National Academy of Sciences.

Karen H. Antman, M.D. is the Chief of the Division of Medical Oncology, College of Physicians & Surgeons of Columbia University. Dr. Antman is an expert in emerging treatment strategies for solid tumors, notably breast cancer and sarcomas. From 1994 to 1995 she served as President of the American Society of Clinical Oncology. Since 1993 Dr. Antman has served on the Sarcoma Committee of the Southwest Oncology Group, and has been its chairperson since 1995. From 1993 to 1994 she was program committee chair of the American Association for Cancer Research. She is on the editorial board of several prestigious journals, including Associate Editor of The New England Journal of Medicine. She has authored over 100 manuscripts and textbooks.

Frederick Appelbaum, M.D. is the Director of Clinical Research and Senior Vice President of the FHCRC. He is a recognized authority in the treatment of patients with leukemia and lymphoma. He serves on several editorial boards and national committees, including the FDA Advisory Committee on Biologics; serves as Chairman of the Southwest Oncology Group Leukemia Committee; and serves on the Board of Directors of the American Society for Blood and Marrow Transplantation. He has authored more than 450 manuscripts.

O. Michael Colvin, M.D. is the Director of the Duke Comprehensive Cancer Center at Duke University Medical Center. Dr. Colvin is an expert in therapeutic drug modeling and rational drug design. His work led to the discovery of several chemotherapeutic agents. He was previously Chief of the Division of Pharmacology and Experimental Therapeutics at The Johns Hopkins Oncology Center. He has authored over 100 manuscripts.

Milo Gibaldi, Ph.D. is the Gibaldi Endowed Professor of Pharmaceutics of the School of Pharmacy at the University of Washington, with past faculty appointments at Columbia University and the State University of New York at Buffalo. His expertise in drug metabolism has led to consultantships with such pharmaceutical firms as Hoffman-LaRoche, Ciba-Geigy and Glaxo. Dr. Gibaldi has also served on FDA's Panel on Generic Drugs. His research has focused on gastrointestinal absorption of drugs and the development of stable formulations for therapeutic compounds.

William P. Peters, M.D., Ph.D. is a Director of the Meyer L. Prentis Comprehensive Cancer Center of Metropolitan Detroit and the President and Chief Executive Officer of the Karmanos Cancer Institute. He is a recognized leader in the use of dose-intensive chemotherapy regimens with peripheral blood stem cell support as a cost-effective approach to the treatment of cancer. He has published extensively and is the recipient of many honors and awards, among them the American Cancer Society Clinical Fellowship Award and the R. Wayne Rundles Award for Excellence in Cancer Research.

Thomas A. Raffin, M.D. is the Chief of the Division of Pulmonary and Critical Care Medicine of the Stanford University Medical Center. He is a recognized authority on mechanisms of ALI, Multi-Organ Failure and Systemic Inflammatory Response Syndrome among critically ill patients. He serves on numerous editorial boards and societies, including the Editorial Board of Chest and Critical Care Medicine, the American Thoracic Society and the Society of Critical Care Medicine. He has authored more than 175 manuscripts and 60 book chapters.

Thomas E. Starzl, M.D., Ph.D. is the Director of the Transplantation Institute of the University of Pittsburgh. He is a noted expert in the field of immunology and solid organ transplantation. He is the recipient of numerous awards and was founding President of several prestigious societies, including the American Society of Transplant Surgeons. He has authored approximately 1,400 manuscripts and more than 160 book chapters.

The Company has entered into consulting agreements with each member of the Clinical Advisory Board. These agreements generally have a two-year term and may be terminated by either party upon 30 days' written notice. These agreements generally restrict the consultant from competing with cti during the term of the agreement. These agreements contain provisions prohibiting the disclosure of confidential information to anyone outside of cti and require disclosure to cti of ideas, developments, discoveries or inventions conceived during consulting and assignment to cti of proprietary rights to such matters related to the business and technology of cti. Each consultant is required to serve on cti's Clinical Advisory Board and provide related consulting services, as cti may reasonably request. Each Clinical Advisory Board member is paid either an annual fee or is compensated at market-competitive hourly rates and is granted an option to purchase Common Stock.

FACTORS AFFECTING OUR OPERATING RESULTS

The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected. In such case, the trading price of our common stock could decline.

This Annual Report on Form 10-K also contains "forward-looking" statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this Annual Report on Form 10-K.

We Are Dependent on a Single Drug Candidate

We are conducting two pivotal Phase III clinical trials for our first lead product candidate, LSF. We cannot assure you that these Phase III trials will be successfully completed or that they will lead to product approval by the FDA. We cannot assure you that we will be successful in our efforts to develop LSF for any indications. The remainder of our drug candidates are still in research and development, preclinical trials or clinical trials. We will have to commit significant time and resources to develop additional product candidates. We are dependent on the successful completion of our two pivotal Phase III trials for LSF and obtaining regulatory approval of LSF in order to generate revenues. The failure to generate such revenues may preclude us from continuing our research and development of other product candidates. If we fail to successfully develop, manufacture or market LSF, then our business, financial condition and results of operations would be materially adversely impacted.

There Is No Certainty of Positive Clinical Trial Outcomes

Our first and second leading drug candidates, LSF and Apra, are currently being tested in human clinical trials. Clinical trials or drug candidates involve the testing of potential therapeutic agents in humans to determine the safety and efficacy of drug candidates. Many drugs in human clinical trials fail to demonstrate the desired safety and efficacy characteristics. Drugs in later stages of development may fail despite having progressed through initial human testing. A number of companies in the pharmaceutical industry, including cti, have suffered significant setbacks in advanced clinical trials, even after reporting promising results in earlier trials. In

our first Phase III trial for LSF, completed in March 1998, we failed to meet our two primary endpoints, even though we met our endpoints in two earlier Phase II trials for LSF. In addition, data obtained from clinical trials are susceptible to varying interpretations. There can be no assurance that government regulators or our collaborators will agree with our interpretation of our future clinical trial results. We cannot assure you that the clinical trials of LSF, Apra or any of our future drug candidates will be successful.

Our Product Development Programs Are In an Early Stage

Since our inception in 1991, we have dedicated substantially all of our resources to the research and development of our technologies and related compounds. All of our compounds currently are in research or development. Two have entered human clinical trials. None has been submitted for marketing approval. Preclinical studies of product candidates do not ensure safety or efficacy in humans and are not necessarily indicative of the results that may be achieved in human clinical trials. There can be no assurance that any of our other compounds will enter human clinical trials on a timely basis, if at all, or that we will develop any product candidates suitable for commercialization. Prior to commercialization, each product candidate will require significant additional research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons. Potential products may:

- be found ineffective or cause harmful side effects during clinical testing or clinical trials,
- fail to receive necessary regulatory approvals,
- be difficult to manufacture on a large scale,
- be uneconomical to produce,
- fail to achieve market acceptance, or

. be precluded from commercialization by proprietary rights of third parties.

We cannot assure you that our product development efforts or that of our collaborative partners' efforts will be successfully completed, that required regulatory approvals will be obtained or that any products, if introduced, will be successfully marketed or achieve customer acceptance. Failure to identify and commercialize any products would have a material adverse affect on our business, financial condition or results of operations.

We Are Dependent on Collaborators and Others

A key element of our strategy is to enhance our drug discovery and development programs and to fund our capital requirements, in part, by entering into various collaborative arrangements with corporate partners, academic collaborators and licensors. In 1996, we entered into a Collaboration Agreement with subsidiaries of Johnson & Johnson ("Johnson & Johnson") to jointly develop and commercialize LSF. On November 16, 1998, the Collaboration Agreement was amended. Under the terms of the amended Collaboration Agreement, we assumed all responsibility for further development of LSF as of January 1, 1999. Johnson & Johnson may elect to resume its responsibilities for the development and commercialization of LSF following a successful outcome of one of our Phase III trials, subject to certain additional payments upon resumption of its obligations. If Johnson & Johnson does not resume its development activities, then we will be free to license LSF to other third parties. In January 1998, we entered into an agreement with City of Hope National Medical Center to form a joint venture to discover and develop a new class of drugs to treat diabetes and its complications. In July 1998, we in-licensed exclusive worldwide rights to PG-TXL, a water-soluble and potentially more effective form of the cancer drug, Taxol(R). However, we cannot assure you that we will be able to negotiate acceptable collaborative arrangements in the future or that these collaborations, if entered into, will be on terms favorable to us. If we are unable to enter into future collaborations with capable partners and on commercially reasonable terms, the development and commercialization of our product candidates would be delayed and possibly postponed indefinitely.

We Must Be Able to Protect Our Intellectual Property

Our success depends in part on our ability to:

.obtain patent protection for our products or processes both in the United States and other countries,

.protect trade secrets,

.operate without infringing upon the proprietary rights of others, and

.prevent others from infringing on our proprietary rights.

The patent position of biopharmaceutical firms generally is highly uncertain and involves complex legal and factual questions. The U.S. Patent and Trademark Office has not established a consistent policy regarding the breadth of claims that it will allow in patents affecting subject matters of interest to cti. If it allows broad claims, the number and cost of patent interference proceedings in the U.S. and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease.

We cannot assure you that patent applications in which we have rights will ever issue as patents or that the claims of any issued patents will afford meaningful protection for our technologies or products. In addition, we cannot assure you that any patents issued to us or our licensors will not be challenged and subsequently narrowed, invalidated or circumvented. Litigation, interference proceedings or other governmental proceedings that we may become involved in with respect to our proprietary technologies or the proprietary technology of others could result in substantial cost to us. Patent litigation is widespread in the biotechnology industry, and it is not possible to predict how any patent litigation will affect us. We attempt to monitor the patent filings of our competitors in an effort to guide the design and development of our products to avoid infringement.

Notwithstanding these efforts, however, third parties may challenge the patents that have been issued or licensed to us. In addition, patents issued to third parties may cover our products and services as ultimately developed. We may need to acquire licenses to these patents or challenge the validity of these patents. We may not be able to license any patent rights on acceptable terms or successfully challenge such patents. The need to do so will depend on the scope and validity of these patents and ultimately on the final design or formulation of the products and services that we develop.

We have rights to numerous patents and patent applications worldwide. Nonetheless, we cannot guarantee that the patents that we currently have or will obtain in the future will effectively protect our technology. We are aware of a patent belonging to third parties that could be interpreted to compromise our freedom to sell LSF in the United States for certain non-oncology applications. We believe, however, upon the advice of our patent counsel, that any such interpretation is relevant only in connection with our use of LSF in preventing lung injury following traumatic injury or sepsis. Irrespective of such interpretation, we believe that our planned manufacture, sale or use of LSF as described in this Form 10-K does not infringe any valid claim of the third-party patent. If the third-party patent rights were interpreted to limit the use of LSF, we could be required to obtain a license. We cannot assure you that we could obtain a license on reasonably acceptable terms, if at all.

We also rely upon trade secrets, proprietary know-how and continuing technological innovation to remain competitive. Third parties may independently develop such know-how or otherwise obtain access to our technology. While our employees, consultants and corporate partners with access to proprietary information are generally required to enter into confidentiality agreements, these agreements may not be honored.

Our Lipid-Based Technology Is Uncertain

We rely exclusively upon our lipid-based technology for the discovery, development and commercialization of drugs for the treatment of cancer and inflammatory and immune diseases. Results from our preclinical research and clinical trials indicate that certain kinds of oxidized lipids play an important role in negative cellular responses to damaging stimuli such as radiation, chemotherapy and oxidative injury. To date, we have dedicated

our resources primarily to the research and development of drugs that we believe regulate oxidized lipids. The causes of cancer, inflammatory and immune disease are complex however, and the precise role of oxidized lipids in negative cellular responses is not fully known. See "--Scientific Overview." We cannot assure you that our lipid-based technological approaches are correct or that our drug candidates will be proven safe or effective. We also cannot assure you that we ultimately will be able to develop commercial products from our drug candidates.

Competition Is Intense

The biotechnology and pharmaceutical industries are intensely competitive. We have numerous competitors in the United States and elsewhere. Our competitors include major, multinational pharmaceutical and chemical companies, specialized biotechnology firms and universities and other research institutions. Many of these competitors have greater financial and other resources, larger research and development staffs and more effective marketing and manufacturing organizations, than we do. In addition, academic and government institutions have become increasingly aware of the commercial value of their research findings. These institutions are now more likely to enter into exclusive licensing agreements with commercial enterprises, including our competitors, to market commercial products.

We cannot give any assurance that our competitors will not succeed in developing or licensing technologies and drugs that are more effective or less costly than any we are developing. Our competitors may succeed in obtaining FDA or other regulatory approvals for drug candidates before we do. We face direct competition from many companies focusing on areas such as cell signal transduction, surface receptor technology, transcription factors and gene therapies. We cannot give any assurance that drugs resulting from our research and development efforts, if approved for sale, will be able to compete successfully with our competitors' existing products or products under development.

Rapid Technological Change Could Make Our Products Obsolete

Biotechnology and related pharmaceutical technology have undergone and are subject to rapid and significant change. We expect that the technologies associated with biotechnology research and development will continue to develop rapidly. Our future will depend in large part on our ability to maintain a competitive position with respect to these technologies. Any compounds, products or processes that we develop may become obsolete before we recover any expenses incurred in connection with developing these products.

We Have a History of Losses and an Expectation of Future Losses

Cti was incorporated in 1991 and has incurred a net operating loss every year. As of December 31, 1998, we had an accumulated deficit of approximately $122.1 million. Losses have resulted principally from costs incurred in research activities aimed at discovering and developing our product candidates, and from general and administrative costs associated with our operations. We currently have no product revenue, and we cannot assure you that we will ever be able to earn such revenue or that our operations will become profitable, even if we are able to commercialize any products. We will be required to conduct significant research, development, testing and regulatory compliance activities that, together with projected general and administrative expenses, are expected to result in substantial increasing operating losses for at least the next several years. Our future profitability depends, in part, on:

- our obtaining regulatory approval for LSF and Apra, our two lead product candidates,
- our entering into agreements for the commercialization, manufacture and marketing of Apra, and
- our entering into agreements for the development, commercialization, manufacture and marketing of additional products derived from our other drug development and discovery programs.

We cannot assure you that we, or any potential collaborative partners, will obtain required regulatory approvals, or successfully develop, commercialize, manufacture and market product candidates. We also cannot assure you that we will ever achieve product revenue or profitability.

We Will Require Substantial Additional Capital

We expect that our existing capital resources and the interest earned thereon, will enable us to maintain our current and planned operations at least through mid 2000. Beyond that time, we will require substantial funds to: (1) continue our research and development programs, (2) in-license or acquire additional technologies, and (3) conduct preclinical studies and clinical trials. We may be required to raise additional capital to fund our operations repeatedly. Such capital may be raised through public or private equity financings, partnerships, debt financings, bank borrowings, or other sources. Our capital requirements will depend upon numerous factors, including the following:

- the establishment of additional collaborations,
- the development of competing technologies or products,
- changing market conditions,
- the cost of protecting our intellectual property rights,
- the purchase of capital equipment,
- the progress of our drug discovery and development programs,
- the progress of our collaborations and receipt of any option/license, milestone and royalty payment resulting from those collaborations, and
- in-licensing and acquisition opportunities.

Additional funding may not be available on favorable terms or at all. If adequate funds are not otherwise available, we may be required to curtail operations significantly. To obtain additional funding, we may need to enter into arrangements that require us to relinquish rights to certain technologies, drug candidates, products and/or potential markets. To the extent that additional capital is raised through the sale of equity, or securities convertible into equity, you may experience dilution of your proportionate ownership of cti.

Government Regulation Is Extensive and There Is No Assurance of FDA Approval

The pharmaceutical industry is subject to stringent regulation with respect to product safety and efficacy by various federal, state and local authorities. Of particular significance are the FDA's requirements covering research and development, testing, manufacturing, quality control, labeling and promotion of drugs for human use. A pharmaceutical product cannot be marketed in the U.S. until it has been approved by the FDA, and then can only be marketed for the indications and claims approved by the FDA. As a result of these requirements, the length of time, the level of expenditures and the laboratory and clinical information required for approval of a NDA (New Drug Application) are substantial and can require a number of years, although recently revised regulations are designed to reduce somewhat the time for approval of new products. In addition, data obtained from preclinical studies and clinical trials are susceptible to varying interpretations which could delay, limit or prevent regulatory approval. Furthermore, studies conducted with alternative designs or alternative patient populations could produce results which vary from those obtained by us. We cannot assure you that our data or our interpretation of our data will be accepted by governmental regulators, the medical community or our collaborators.

If our products are marketed abroad, they will also be subject to export requirements and to regulation by foreign governments. The applicable regulatory approval process is lengthy and expensive and must be completed prior to the commercialization of a product. We cannot give any assurance that we will be able to obtain necessary regulatory approvals on a timely basis, if at all, for any of our products under development. Delays in receipt or failure to receive such approvals or failure to comply with existing or future regulatory requirements could have a material adverse effect on our business, financial condition and results of operations.

Product development and approval to meet FDA regulatory requirements takes a number of years, involves the expenditure of substantial resources and is uncertain. Many products that initially appear promising ultimately do not reach the market because they are not found to be safe or effective.

In addition, the current regulatory framework could change and additional regulations may arise at any stage of product development that may affect approval, delay the submission or review of an application or require additional expenditures. The effect of government regulation may be to delay marketing of our products for a considerable or indefinite time, impose costly procedural requirements and furnish a competitive advantage to larger companies or companies more experienced in regulatory affairs. Delays in obtaining governmental regulatory approval could adversely affect our marketing strategy as well as our ability to generate revenue from product sales. The failure to obtain marketing approval of our products on a timely basis, or at all, would have a material adverse effect on our business, financial condition and results of operations.

We Rely on Third-Party Manufacturers

We currently do not have internal facilities for the manufacture of any of our products for clinical or commercial production. We currently rely on one third party, ChiRex, Ltd. (ChiRex), to manufacture LSF bulk drug and three suppliers for clinical trial quantities of the finished drug product. Our manufacture and supply agreement with ChiRex provides for the manufacture and supply of LSF bulk drug and corresponding intermediate compounds for our requirements for ongoing and future clinical trials and commercial requirements during product launch and commercialization. LSF has never been manufactured on a commercial scale and we cannot assure you that we, together with a third-party collaborator, will be able to make the transition to commercial production. We have identified manufacturers with adequate capacity to meet forecasted commercial quantities of LSF, however, there can be no

assurance that we can enter into an agreement with these manufacturers on terms acceptable to us.

We will need to develop additional manufacturing resources, enter into collaborative arrangements with other parties which have established manufacturing capabilities or elect to have other third parties manufacture our products on a contract basis. We are a party to one such agreement with a third-party vendor to furnish Apra bulk drug substance for future clinical studies. We are dependent on such collaborators or third parties to supply us in a timely way with products manufactured in compliance with standards imposed by the FDA and foreign regulators. We cannot assure you that the manufacturing facilities of contract manufacturers, including ChiRex, will comply with applicable manufacturing regulations of the FDA or meet our requirements for quality, quantity or timeliness.

We Lack Sales and Marketing Capabilities

We have no direct experience in marketing, sales or distribution. We believe, however, that the United States oncology market is accessible by a limited marketing staff and field sales organization. Our strategy for commercializing LSF for its oncology applications is to establish a strategic alliance with a corporate partner that has an established, skilled, and experienced field sales organization with which to collaborate in the areas of marketing strategy and clinical liaison. There can be no assurance that we will be able to establish such a strategic alliance. Should we have to market and sell our products directly, we would need to develop a marketing and sales force with technical expertise and distribution capability. The creation of infrastructure to commercialize pharmaceutical products is an expensive and time-consuming process. There can be no assurance that we would be able to develop the necessary marketing and sales capabilities or be successful in gaining market acceptance for our products.

We Depend on Certain Key Personnel

We are highly dependent on the principal members of our scientific and management staff. Recruiting and retaining qualified scientific personnel to perform research and development work are critical to cti's success. There is intense competition for qualified scientists and managerial personnel from numerous pharmaceutical and biotechnology companies, as well as from academic and government organizations, research institutions and other entities. The loss of any principal member of our scientific or management staff, or failure to attract or retain other key scientific personnel employees, could have a material adverse effect on our business, financial condition and results of operations. In addition, we rely on consultants and advisors, including our scientific

and clinical advisors, to assist us in formulating our research and development strategy. All of our consultants and advisors are employed by other employers or are self-employed, and have commitments to or consulting or advisory contracts with other entities that may limit their availability to us.

There Is Risk of Product Liability and We Face Potential Difficulties In Obtaining Insurance

Our business exposes us to potential product liability risks inherent in the testing, manufacturing and marketing of human pharmaceutical products, and we cannot assure you that we will be able to avoid significant product liability exposure. Except for insurance covering product use in our clinical trials, we do not currently have any product liability insurance, and we cannot assure you that we will be able to obtain or maintain such insurance on acceptable terms or that any insurance obtained will provide adequate coverage against potential liabilities. Our inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or limit the commercialization of any products we develop. A successful product liability claim in excess of our insurance coverage could have a material adverse effect on our business, financial condition and prospects.

Uncertainty Regarding Third-Party Reimbursement and Health Care Cost Containment Initiatives May Impact Our Revenue

Our ability to commercialize our products successfully will be affected by the ongoing efforts of governmental and third-party payors to contain or reduce the cost of health care. Governmental and other third-party payors increasingly are attempting to contain health care costs by:

- challenging the prices charged for health care products and services,
- limiting both coverage and the amount of reimbursement for new therapeutic products,
- denying or limiting coverage for products that are approved by the FDA but are considered experimental or investigational by third-party payors, and
- refusing in some cases to provide coverage when an approved product is used for disease indications in a way that has not received FDA marketing approval.

In addition, the trend toward managed health care in the United States, the growth of organizations such as health maintenance organizations, and legislative proposals to reform healthcare and government insurance programs could significantly influence the purchase of healthcare services and products, resulting in lower prices and reducing demand for our products.

If we succeed in bringing any of our proposed products to the market, we cannot assure you that they will be considered cost-effective or that third-party reimbursement will be available or sufficient. In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us before or after any of our proposed products are approved for marketing. While we cannot predict whether any such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and results of operations.

We Cannot Assure Market Acceptance of Our Product

We cannot assure you that our drug candidates, if approved by the FDA and other regulatory agencies, will achieve market acceptance. The degree of market acceptance will depend on a number of factors, including:

- the receipt and timing of regulatory approvals,
- the availability of third-party reimbursement, and
- the establishment and demonstration in the medical community of the clinical safety, efficacy and cost-effectiveness of our drug candidates and their advantages over existing technologies and therapeutics.

We cannot assure you that we will be able to manufacture and successfully market our drug candidates even if they perform successfully in clinical applications. Also, we cannot assure you that physicians or the medical community in general will accept and utilize any therapeutic products that we may develop.

The Year 2000 Issue Could Impact Our Business

We could be impacted by the Year 2000 issue, which results from computer programs being written using two digits rather than four to define the applicable year. Any of our computer programs that have time-sensitive software may recognize a date using "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including, among other things, a temporary inability to process transactions, send invoices or engage in similar normal business activities.

We are in the process of assessing our computer systems to determine the extent of modifications required so that our computer systems will function properly with respect to dates in the year 2000 and thereafter. Our systems are all relatively new and PC-based. All of our business software programs, with the exception of our fixed asset module, have been evaluated as Year 2000 compliant. The fixed asset module is scheduled for replacement in the first

quarter of 1999. We have also initiated an assessment of our non-information technology systems. Critical electro-mechanical instruments containing software are currently being evaluated for Year 2000 compliance. This evaluation is expected to be completed in the first quarter of 1999. We have also initiated formal communications with all of our significant suppliers to determine the extent to which our interface systems are vulnerable to those third parties' failure to remedy their own Year 2000 issues. We will be following up with these suppliers during the first quarter of 1999 to determine the extent of alternative sources or contingency plans that are required. We presently believe the Year 2000 issue will not pose significant operational problems for our computer systems, non-information technology systems or third-party relationships.

We have been continually upgrading our information technology systems and critical laboratory instrumentation since inception in 1992. We have not incurred to date, and do not anticipate incurring, material additional costs to accelerate the replacement of our existing information technology systems or critical laboratory instrumentation due to Year 2000 issues.

If corrections to our Year 2000 issues are not completed, or the systems of other companies on which our systems rely are not timely converted, the Year 2000 Issue could have a material impact on our business, prospects, financial condition, liquidity and results of operations. These impacts could include, but are not limited to, future revenue delays due to delayed research, development, clinical trials or agency approvals.

We believe that the Year 2000 issues can be effectively avoided, but we intend to develop a contingency plan to allow operations to continue even if significant issues are experienced. We have a team assigned to review all information technology systems, all equipment, and vendors of equipment and services that may be impacted by Year 2000 issues. Contingency plans will be developed for each critical activity by the end of the second quarter of 1999.

We Use Hazardous Materials

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be eliminated completely. In the event of such an accident, we could be held liable for any damages that result and any such liability not covered by insurance could exceed our resources.

Ownership of Our Common Stock Is Concentrated

Directors and officers of cti, and their affiliates, beneficially own in the aggregate 3,367,848 shares of our Common Stock (including shares of Common Stock subject to options or warrants exercisable or convertible

within 60 days of February 26, 1999), representing approximately 21.67 percent of the voting power of our outstanding securities. Such concentration of ownership may have the effect of delaying, deferring or preventing a change in control of the Company.

Our Stock Price May Be Volatile

The market price for securities of biopharmaceutical and biotechnology companies, including that of cti, historically have been highly volatile, and the market from time to time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. Factors that may have a significant impact on the market price and marketability of our Common Stock include:

- announcements of technological innovations or new commercial therapeutic products by us, our collaborative partners or our present or potential competitors,

- announcements by us or others of results of preclinical testing and clinical trials,

- developments or disputes concerning patent or other proprietary rights,
- developments in our relationships with collaborative partners,
- acquisitions,
- litigation,
- adverse legislation,
- changes in governmental regulation, third-party reimbursement policies, the status of our regulatory approvals or applications,
- changes in earnings,
- changes in securities analysts' recommendations,
- changes in health care policies and practices,
- economic and other external factors,
- period-to-period fluctuations in our financial result, and
- general market conditions.

Fluctuations in the trading price or liquidity of our Common Stock may adversely effect our ability to raise capital through future equity financings.

Our Charter Documents Contain Certain Anti-Takeover Provisions and We Have a Rights Plan

Our Restated Articles of Incorporation and Bylaws contain provisions that may make it more difficult for a third party to acquire or make a bid for us. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our Common Stock. In addition, shares of our preferred stock may be issued in the future without further shareholder approval and upon such terms and conditions and having such rights, privileges and preferences, as the Board of Directors may determine. The rights of the holders of Common Stock will be subject to, and may be adversely affected by, the rights of any holders of preferred stock that may be issued in the future. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, a majority of our outstanding voting stock. We have no present plans to issue any shares of preferred stock. In addition, we have adopted a shareholder rights plan that, along with certain provisions of our Restated Articles of Incorporation, may have the effect of discouraging certain transactions involving a change of control of cti.

ITEM 2. PROPERTIES

The Company leases approximately 66,000 square feet of space at 201 Elliott Avenue West in Seattle, Washington for its executive office, laboratory and administrative operations. The lease expires January 31, 2003, with two consecutive five-year renewal options at the then prevailing market rent. Also, the Company has leased approximately 12,500 square feet of space at 300 Elliott Avenue West. The lease expires on August 31, 2001, with a three-year renewal option at the then prevailing market rent. Although the Company's existing and planned facilities are believed to be adequate to meet its present requirements, the Company is presently planning for additional office and laboratory space. Despite a decrease in local vacancy rates for commercial space, the Company currently anticipates that additional space will be available to it, when needed, on commercially reasonable terms. See "Item 1.--Business--Manufacturing."

ITEM 3. LEGAL PROCEEDINGS

The Company is not a party to any material legal proceedings.

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

Not applicable.

PART II

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

The Company's common stock commenced trading on the Nasdaq National Market under the symbol "CTIC" March 21, 1997. The following table sets forth, for the periods indicated, the high and low reported sales prices per share of the common stock as reported on the Nasdaq National Market.

	HIGH	LOW
1997		
Fourth Quarter	$18 3/4	$14 7/8
Third Quarter	16 1/4	10 5/8
Second Quarter	13 5/8	7 5/8
First Quarter (commencing March 21, 1997)	10 7/8	10
1998		
Fourth Quarter	3 3/4	1 3/4
Third Quarter	3 3/16	1 1/2
Second Quarter	4 3/4	2 1/2
First Quarter	16 3/4	4
1999		
First Quarter (through March 15, 1999)	4 1/2	2 7/8

The last reported sale price of the common stock on the Nasdaq Market on March 15, 1999 was $4 per share. At March 15, 1999, there were approximately 317 shareholders of record and 15,534,359 outstanding shares of common stock.

DIVIDEND POLICY

The Company has not declared or paid any cash dividends on its capital stock since its inception. The Company currently intends to retain all of its cash and any future earnings to finance the growth and development of its business and therefore does not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of the Board of Directors and will be dependent upon the Company's financial condition, results of operations, capital requirements and such other factors as the Board of Directors deems relevant.

USE OF PROCEEDS FROM INITIAL PUBLIC OFFERING

The Company completed its initial public offering (the "IPO") in March 1997, in which it issued and sold 3 million shares of common stock for aggregate proceeds to the Company of $27.9 million. The effective date of the Registration Statement (Commission File No. 333-20855) was March 18, 1997. The managing underwriters for the IPO were: UBS Securities LLC (now known as "Warburg Dillon Read"), Montgomery Securities (now known as "NationsBanc Montgomery Securities, Inc.") and Raymond James & Associates, Inc. Of the aggregate proceeds received in the IPO, $1.1 million was used to pay costs and expenses related to the IPO, resulting in net proceeds of $26.8 million. As of December 31, 1998, of the net proceeds, $5.6 million was used for repayment of long-term obligations and purchases of equipment and furniture, and $21.2 million was used for research, development and general and administrative activities.

ITEM 6. SELECTED FINANCIAL DATA

The selected financial data set forth below with respect to the Company's consolidated statements of operations for each of the three years in the

period ended December 31, 1998 and for the period from September 4, 1991 (date of incorporation) to December 31, 1998, and with respect to the consolidated balance sheets at December 31, 1997 and 1998, are derived from the audited consolidated financial statements of the Company included elsewhere in this Report, and is qualified by reference to such financial statements and the notes related thereto. The consolidated balance sheets data at December 31, 1994, 1995 and 1996 and the consolidated statements of operations data for the years ended December 31, 1994 and 1995 are derived from audited financial statements of the Company not included in this Report. The data set forth below should be read in conjunction with Item 7.--"Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and Notes thereto appearing at Item 8 of this Report.

	YEAR ENDED DECEMBER 31,					PERIOD FROM SEPTEMBER 4, 1991 (DATE OF INCORPORATION) TO DECEMBER 31,
	1994	1995	1996	1997	1998	1998
	(IN THOUSANDS, EXCEPT PER SHARE DATA)					
CONSOLIDATED STATEMENTS OF OPERATIONS DATA:						
Revenues:						
Collaboration agreements	$ --	$ 100	$ 9,121	$ 11,831	$ 13,200	$ 34,252
Operating expenses:						
Research and development	14,368	14,606	16,109	27,285	29,232	117,387
General and administrative	5,283	6,144	7,602	10,090	11,599	46,432
Total operating expenses	19,651	20,750	23,711	37,375	40,831	163,819
Loss from operations	(19,651)	(20,650)	(14,590)	(25,544)	(27,631)	(129,567)
Other income (expense):						
Investment income	616	1,167	1,174	2,895	3,094	9,962
Interest expense	(464)	(509)	(512)	(378)	(435)	(2,465)
Net loss	(19,499)	(19,992)	(13,928)	(23,027)	(24,972)	(122,070)
Basic and diluted net loss per share	$ (4.13)	$ (4.19)	$ (2.82)	$ (1.98)	$ (1.62)	
Shares used in computation of basic and diluted net loss per share	4,716,399	4,771,247	4,939,388	11,634,032	15,409,848	
Pro forma basic and diluted net loss per share		$ (2.90)	$ (1.69)	$ (1.81)		
Shares used in computation of pro forma basic and diluted net loss per share		6,897,229	8,227,888	12,735,215		

	DECEMBER 31,				
	1994	1995	1996	1997	1998
	(IN THOUSANDS)				
CONSOLIDATED BALANCE SHEETS DATA:					
Cash, cash equivalents and securities available-for-sale	$ 9,131	$ 21,906	$ 30,987	$ 70,444	$ 47,072

Collaboration agreement receivables	--	--	--	3,683	3,254
Working capital	4,094	18,342	26,300	67,594	44,143
Total assets	17,278	28,048	37,002	80,433	58,156
Long-term obligations, less current portion	2,620	2,606	2,005	2,039	3,888
Deficit accumulated during development stage	(40,151)	(60,144)	(74,072)	(97,098)	(122,070)
Total shareholders' equity	10,051	21,858	30,054	71,760	47,165

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

OVERVIEW

Since commencement of operations in 1992, the Company has been engaged in research and development activities, including conducting preclinical studies and clinical trials, recruiting its scientific and management personnel, establishing laboratory facilities and raising capital. The Company has not received any revenue from the sale of products to date and does not expect to receive revenues from the sale of products for at least the next several years.

In the fourth quarter of 1995, the Company began to receive revenue under a collaboration agreement with BioChem Pharma, Inc. ("BioChem Pharma") and in the fourth quarter of 1996 the Company began to receive revenue under a collaboration agreement (the "Collaboration Agreement") with subsidiaries of Johnson & Johnson ("Johnson & Johnson"). Under the terms of the Collaboration Agreement, Johnson & Johnson paid 60% of the U.S. development costs in connection with obtaining regulatory approval of lisofylline ("LSF(TM)") for use with bone marrow transplants ("BMT"). After exercising its option in 1997, Johnson & Johnson expanded its participation in the development of LSF to include the treatment of patients undergoing induction chemotherapy to treat acute myeloid leukemia ("AML"). In July 1998, after reviewing the results of the Company's Phase III clinical trial for LSF among patients receiving BMT from related donors, in which the primary endpoints were not met, Johnson & Johnson reached an agreement in principle with the Company to revise the Collaboration Agreement. On November 16, 1998, the Company and Johnson & Johnson formally amended the Collaboration Agreement. Under the terms of the amended Collaboration Agreement, Johnson & Johnson agreed to pay the Company $13.1 million for development cost reimbursements for BMT and AML for the year ending December 31, 1998. After reviewing both the interim data from the Company's pivotal Phase II/III trial for LSF in patients with acute lung injury and acute respiratory distress syndrome and the results of the Company's Phase III trial for LSF following induction chemotherapy for AML, Johnson & Johnson may elect to resume responsibility for the development and commercialization of LSF subject to certain additional payments upon resumption of its obligations. If Johnson & Johnson does not elect to resume development activities, then the Company will be free to license LSF to other third parties. As of December 31, 1998, the Company had recorded approximately $40.8 million in equity payments, license and milestone fees, and development cost reimbursements with Johnson & Johnson. See "Item 1.--Business--Collaborations."

As of December 31, 1998, the Company had incurred aggregate net losses of approximately $122.1 million since its inception. The Company expects to continue to incur significant additional operating losses over the next several years as its research, development and clinical trial efforts expand. Operating losses may fluctuate from quarter to quarter as a result of differences in the timing of expenses incurred and revenues recognized. To date, the Company's operations have been funded primarily from sales of equity securities, which have raised aggregate net proceeds of approximately $168.0 million.

On March 26, 1997, the Company completed an initial public offering (the "IPO") of 3 million shares of its common stock at an offering price of $10.00 per share, resulting in net proceeds of $26.8 million. Concurrent with the closing of the IPO, the Company sold 300,000 shares of common stock to Johnson & Johnson at a price of $10.00 per share, resulting in net proceeds of $3.0 million. On October 27, 1997, the Company completed a follow-on public offering (the "Follow-On Offering") of 2.3 million shares of its common stock

at an offering price of $16.00 per share, resulting in net proceeds of $34.3 million.

The Company could be impacted by the Year 2000 issue, which results from computer programs being written using two digits rather than four to define the applicable year. Any of the Company's computer programs that have time-sensitive software may recognize a date using "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including, among other things, a temporary inability to process transactions, send invoices, or engage in similar normal business activities.

The Company is in the process of assessing its computer systems to determine the extent of modifications required so that its computer systems will function properly with respect to dates in the year 2000 and thereafter. The Company's systems are all relatively new and PC-based. All of the Company's business software programs, with the exception of its fixed asset module, have been evaluated as Year 2000 compliant. The fixed asset module is scheduled for replacement in the first quarter of 1999. The Company has also initiated an assessment of its non-information technology ("non-IT") systems. Critical electro-mechanical instruments containing software are currently being evaluated for Year 2000 compliance. This evaluation is expected to be completed in the first quarter of 1999. The Company has also initiated formal communications with all of its significant suppliers to determine the extent to which the Company's interface systems are vulnerable to those third parties' failure to remedy their own Year 2000 issues. The Company expects to complete its follow up with these suppliers during the first quarter of 1999 to determine the extent of alternative sources or contingency plans that are required. The Company presently believes the Year 2000 issue will not pose significant operational problems for its computer systems, non-IT systems or third-party relationships.

The Company has been continually upgrading its information technology systems and critical laboratory instrumentation since inception in 1992. The Company has not incurred to date, and does not have plans currently to incur, material additional costs to accelerate the replacement of its existing information technology systems or critical laboratory instrumentation due to Year 2000 issues. Costs incurred to date and costs estimated to complete the Year 2000 project are not expected to be material.

If corrections to the Company's Year 2000 issues are not completed, or the systems of other companies on which the Company's systems rely are not timely converted, the Year 2000 issue could have a material impact on the Company's business, prospects, financial condition, liquidity and results of operations. These impacts could include, but are not limited to, future revenue delays due to delayed research, development, clinical trials or agency approvals.

The Company presently believes that the Year 2000 issues can be effectively avoided, but it intends to develop a contingency plan to allow operations to continue even if significant issues are experienced. The Company has a team assigned to review all information technology systems, all equipment, and vendors of equipment and services that may be impacted by Year 2000 issues. Contingency plans will be developed for each critical activity by the end of the second quarter of 1999.

RESULTS OF OPERATIONS

Years Ended December 31, 1998 and 1997

During the year ended December 31, 1998, the Company recorded $13.1 million of revenue for development cost reimbursements from Johnson & Johnson in connection with the Collaboration Agreement and a $100,000 milestone payment from BioChem Pharma in connection with a collaboration agreement. During the year ended December 31, 1997, the Company recorded approximately $10.8 million of revenue for development cost reimbursements from Johnson & Johnson in connection with the Collaboration Agreement and a $1.0 million milestone payment in connection with Johnson & Johnson exercising its option to expand its participation under the Collaboration Agreement to include the development of LSF for the treatment of patients with newly diagnosed AML undergoing high-dose induction chemotherapy.

Research and development expenses increased to approximately $29.2 million for the year ended December 31, 1998 from approximately $27.3 million for the year ended December 31, 1997. This increase was due primarily to expanded development activities with respect to LSF and Apra(TM) (CT-2584), the Company's novel small molecule drug under investigation for the treatment of patients with multidrug (e.g., chemotherapy) resistant cancers, including the ongoing funding of multiple clinical trials and the recruitment of additional personnel. Additionally, the Company commenced funding of diabetes research efforts related to the Company's Cell City, LLC joint venture with the City of Hope National Medical Center and research efforts with respect to polyglutamate paclitaxel ("PG-TXL(TM)") in 1998. The Company expects that research and development

expenses will increase in future years as the Company expands its research and development programs and undertakes additional clinical trials.

General and administrative expenses increased to approximately $11.6 million for the year ended December 31, 1998 from approximately $10.1 million for the year ended December 31, 1997. This increase was due primarily to operating expenses associated with supporting the Company's increased research, development and clinical activities. Additionally, during 1998 the Company incurred licensing and transaction costs with respect to: the establishment of Cell City, LLC for developing novel pharmacological agents for treating diabetes and diabetes-associated vascular complications; acquiring the rights to PG-TXL; and acquiring the rights to a class of compounds including SC-7 which are inhibitors of tumor angiogenesis. General and administrative expenses are expected to increase to support the Company's expected increase in research, development and clinical trial efforts.

Investment income principally comprises interest income from investment of the Company's cash reserves. Interest expense results primarily from the financing of laboratory and other equipment. Investment income increased to approximately $3.1 million for the year ended December 31, 1998 from approximately $2.9 million for the year ended December 31, 1997. The increase was associated primarily with interest earnings on higher average cash balances on hand during 1998 due to the proceeds remaining from both the Company's IPO and concurrent sale of common stock to Johnson & Johnson late in the first quarter of 1997, and the Company's Follow-On Offering in the fourth quarter of 1997. Interest expense increased to approximately $435,000 for the year ended December 31, 1998 from approximately $378,000 for the year ended December 31, 1997. This increase was due primarily to higher average balances of outstanding long-term obligations, partially offset by lower average interest rates on those obligations.

Years Ended December 31, 1997 and 1996

During the year ended December 31, 1997, the Company recorded approximately $10.8 million of revenue for development cost reimbursements from Johnson & Johnson in connection with the Collaboration Agreement and a $1.0 million milestone payment in connection with Johnson & Johnson exercising its option to expand its participation under the Collaboration Agreement to include the development of LSF for the treatment of patients with newly diagnosed AML undergoing high-dose induction chemotherapy. During the year ended December 31, 1996, the Company recorded a $5.0 million license fee and $871,000 in development cost reimbursements from Johnson & Johnson in connection with the Collaboration Agreement, a $250,000 milestone payment from BioChem Pharma in connection with a collaboration agreement and a $3.0 million signing fee from Schering AG ("Schering") in connection with a collaboration agreement that was terminated by Schering in April 1996. See Note 11 of Notes to Consolidated Financial Statements.

Research and development expenses increased to approximately $27.3 million for the year ended December 31, 1997 from approximately $16.1 million for the year ended December 31, 1996. This increase was due primarily to expanded manufacturing, preclinical and clinical development activities, including the ongoing funding of multiple Phase III clinical trials and the recruitment of additional personnel, with respect to LSF and, to a lesser extent, expanded manufacturing related development activities with respect to Apra.

General and administrative expenses increased to approximately $10.1 million for the year ended December 31, 1997 from approximately $7.6 million for the year ended December 31, 1996. This increase was due primarily to operating

expenses associated with supporting the Company's increased research, development and clinical activities.

Investment income principally comprises interest income from investment of the Company's cash reserves. Interest expense results primarily from the financing of laboratory and other equipment. Investment income increased to approximately $2.9 million for the year ended December 31, 1997 from approximately $1.2 million for the year ended December 31, 1996. The increase was associated primarily with interest earnings on higher average cash balances on hand during 1997 due to the proceeds received in 1997 from both the Company's IPO and concurrent sale of common stock to Johnson & Johnson late in the first quarter and the Company's Follow-On Offering in the fourth quarter. Interest expense decreased to approximately $378,000 for the year ended

December 31, 1997 from approximately $513,000 for the year ended December 31, 1996, due primarily to lower average balances of outstanding long-term obligations.

LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through the sale of equity securities and from its collaboration with Johnson & Johnson. As of December 31, 1998, the Company has raised aggregate net proceeds of approximately $168.0 million through the sale of equity securities including public offerings of common stock, private placements of Series A and B convertible preferred stock and common stock, a bridge loan, the exercise of stock options and warrants, and the sale of common stock pursuant to the Employee Stock Purchase Plan. As of December 31, 1998, the Company had recorded approximately $40.8 million in equity payments, license fees, milestone payments and development cost reimbursements from Johnson & Johnson. In addition, the Company financed the purchase of $16.2 million of property and equipment through financing agreements and capital lease obligations of which approximately $4.6 million remained outstanding as of December 31, 1998.

At December 31, 1998, the Company had $47.1 million in cash, cash equivalents and short-term investments. The Company invests in U.S. government obligations and other highly rated liquid debt instruments. The Company intends to use the substantial portion of its financial resources to fund its research and development activities with respect to the Company's LSF and Apra programs, including preclinical testing, clinical trials and process development activities, and to fund other research and development activities. The amounts actually expended for research and development activities and the timing of such expenditures will depend upon numerous factors, including the progress of the Company's research and development programs, the results of preclinical and clinical trials, the timing of regulatory submissions and approvals, if any, technological advances, determinations as to the commercial potential of the Company's compounds, and the status and timing of competitive products. The amount of expenditures will also depend upon the potential resumption by Johnson & Johnson of its obligations under the Collaboration Agreement, the timing and availability of alternative methods of financing the Company's research and development activities and preclinical and clinical trials, and the ability of the Company to establish collaborative agreements with other companies. A variety of other factors, some of which are beyond the Company's control, could also affect the application of the proceeds.

The Company also expects to use a portion of its financial resources to add research and product development programs. On June 30, 1998, the Company entered into an agreement with PG-TXL Company, L.P. and scientists at the M.D. Anderson Cancer Center, granting the Company an exclusive worldwide license to the rights to PG-TXL, a water soluble form of the cancer drug, Taxol(R), and to all potential uses of PG-TXL's polymer technology. Under the terms of the agreement, the Company will fund the research, development, manufacture, marketing and sale of anti-cancer drugs developed using PG-TXL's polymer technology. On December 11, 1998, the Company entered into an exclusive option agreement with SynChem Research, Inc. ("SynChem") to acquire an exclusive worldwide license (the "SynChem License") to a novel class of compounds which are inhibitors of tumor angiogenesis. The Company's option to acquire the SynChem License shall be exercisable at the end of a six-month evaluation period upon the payment of an initial license fee. Under the terms of the option agreement, the SynChem License will provide that the Company will fund research, development, manufacture, marketing and sale of anti-cancer drugs

using SynChem's copper chelation technology. The Company's research and development expenditures will vary as such research and product development programs are added, expanded or discontinued.

The Company also expects to use portions of its financial resources to improve facilities, purchase capital equipment and for general corporate purposes. The Company has not identified precisely the amount it plans to spend on these specific programs or the timing of such expenditures. Pending such uses, the Company intends to invest its cash balances in U.S. government obligations and other highly rated liquid debt instruments. The Company may also from time to time consider the acquisition of other companies, technologies or products that complement the business of the Company, although no agreements or understandings are in effect with respect to any such transactions at this time.

The Company expects that its capital requirements will increase as the Company expands its research and development programs and undertakes additional clinical trials. In connection with such expansion, the Company expects to incur substantial expenditures for hiring additional management, scientific and administrative personnel, for planned expansion of its facilities, and for the purchase or lease of additional equipment.

The Company does not expect to generate a positive cash flow from operations for several years due to substantial additional research and development costs, including costs related to drug discovery, preclinical testing, clinical trials, manufacturing costs and operating expenses associated with supporting such activities. The Company will need to raise substantial additional capital to fund its operations beyond such time. The Company's future capital requirements will depend on many factors, including the potential resumption by Johnson & Johnson of its obligations under the Collaboration Agreement; the ability of the Company to establish additional collaborative arrangements and the terms of any additional collaborative arrangements that the Company may enter into; the continued scientific progress in the Company's research and development programs; the magnitude of such programs; the progress of preclinical testing and clinical trials; the time and costs involved in obtaining regulatory approvals; the costs involved in preparing, filing, prosecuting, maintaining, enforcing and defending patent claims; the competing technological and market developments; the cost of establishing manufacturing facilities; the cost of commercialization activities and the demand for the Company's products if and when approved.

The Company intends to raise additional funds though additional equity or debt financings, research and development financings, collaborative arrangements, acquisitions, or otherwise. Because of these long-term capital requirements, the Company may seek to access the public or private equity markets from time to time, even if it does not have an immediate need for additional capital at that time. There can be no assurance that additional financing will be available to the Company, or, if available, that it will be on acceptable terms. If additional funds are raised by issuing equity securities, further dilution to shareholders may result. If adequate funds are not available, the Company may be required to delay, reduce the scope of, or eliminate one or more of its research, development and clinical activities. If the Company seeks to obtain funds through arrangements with collaborative partners or others, such partners may require the Company to relinquish rights to certain of its technologies, product candidates or products that the Company would otherwise seek to develop or commercialize by itself. See "Item 1.--Business--Risk Factors--Need for Substantial Additional Funds."

The Company is exposed to market risk related to changes in interest rates and foreign currency exchange rates, each of which could adversely affect the value of the Company's investments. The Company does not use derivative financial instruments for speculative or trading purposes. The Company maintains a short-term investment portfolio consisting of interest bearing securities with an average maturity of less than one year. These securities are classified as "available-for-sale" securities. The interest bearing securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at December 31, 1998, the fair value of the portfolio would decline by an immaterial amount. Because the Company has the ability to hold its fixed income investments until maturity, it does not expect its operating results or cash flows to be affected to any significant degree by a sudden change in market interest rates on its securities

portfolio. As of December 31, 1998, the Company has not entered into any foreign exchange contracts to hedge any exposure in its primary overseas contract because such exposure is immaterial.

As of December 31, 1998, the Company had available for Federal income tax purposes net operating loss carryforwards of approximately $116.6 million and research and development credit carryforwards of approximately $4.3 million. These carryforwards begin to expire in 2007. The Company's ability to utilize its net operating loss and research and development credit carryforwards is subject to an annual limitation in future periods pursuant to the "change in ownership" rules under Section 382 of the Internal Revenue Code of 1986. See Note 10 of Notes to Consolidated Financial Statements.

ITEM 7A. MARKET RISK DISCLOSURE

Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Shareholders
Cell Therapeutics, Inc.

We have audited the accompanying consolidated balance sheets of Cell Therapeutics, Inc. (a development stage company) as of December 31, 1998 and 1997, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 1998 and for the period from September 4, 1991 (date of incorporation) to December 31, 1998. 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 Cell Therapeutics, Inc. (a development stage company) at December 31, 1998 and 1997, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 1998 and for the period from September 4, 1991 (date of incorporation) to December 31, 1998, in conformity with generally accepted accounting principles.

Seattle, Washington
February 12, 1999

Ernst & Young LLP

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED BALANCE SHEETS

	DECEMBER 31,	
	1998	1997
ASSETS		
Current assets:		
Cash and cash equivalents	$ 4,362,486	$ 8,876,990
Securities available-for-sale	42,709,606	61,567,384
Collaboration agreement receivables	3,254,491	3,683,031
Prepaid expenses and other current assets	920,136	101,127
Total current assets	51,246,719	74,228,532
Property and equipment, net	6,825,897	5,905,100
Notes receivable from officers, less current portion	--	71,812
Other assets	83,879	228,052
Total assets	$ 58,156,495	$80,433,496
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,106,832	$ 162,469
Accrued expenses	4,816,385	4,712,232
Current portion of long-term obligations	1,180,702	1,759,387
Total current liabilities	7,103,919	6,634,088
Long-term obligations, less current portion	3,887,603	2,039,104
Commitments		
Shareholders' equity:		
Series A and B convertible preferred stock: Authorized shares--10,000,000	--	--
Common stock, no par value: Authorized shares--100,000,000 Issued and outstanding shares--15,534,359 and 15,378,419 at December 31, 1998 and 1997 respectively	169,618,635	168,893,074
Notes receivable from officers	(380,000)	--
Deficit accumulated during development stage	(122,070,032)	(97,098,121)
Accumulated other comprehensive income	(3,630)	(34,649)
Total shareholders' equity	47,164,973	71,760,304
Total liabilities and shareholders' equity	$ 58,156,495	$80,433,496

See accompanying notes.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF OPERATIONS

YEAR ENDED DECEMBER 31,			SEPTEMBER 4, 1991 (DATE OF INCORPORATION) TO
	1998	1997	

	1998	1997	1996	DECEMBER 31, 1998
Revenues:				
Collaboration agreements	$ 13,200,426	$ 11,831,420	$ 9,120,806	$ 34,252,652
Operating expenses:				
Research and development	29,232,233	27,284,544	16,108,821	117,387,428
General and administrative	11,598,941	10,090,253	7,601,796	46,432,473
	40,831,174	37,374,797	23,710,617	163,819,901
Loss from operations:	(27,630,748)	(25,543,377)	(14,589,811)	(129,567,249)
Other income (expense):				
Investment income	3,094,116	2,894,627	1,174,219	9,962,502
Interest expense	(435,279)	(377,544)	(512,597)	(2,465,285)
Net loss:	$(24,971,911)	$(23,026,294)	$(13,928,189)	$(122,070,032)
Basic and diluted net loss per share	$ (1.62)	$ (1.98)	$ (2.82)	
Shares used in computation of basic and diluted net loss per share	15,409,848	11,634,032	4,939,388	
Pro forma basic and diluted net loss per share		$ (1.81)	$ (1.69)	
Shares used in computation of pro forma basic and diluted net loss per share		12,735,215	8,227,888	

See accompanying notes.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
DECEMBER 31, 1998

	PREFERRED STOCK									
	COMMON STOCK		SERIES A		SERIES B		NOTES RECEIVABLE FROM	DEFICIT ACCUMULATED DURING THE DEVELOPMENT	ACCUMULATED COMPREHENSIVE	
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT	OFFICERS	STAGE	INCOME	TOTAL
Issuance of common stock to founders for cash	1,914,313	$ 87,612	--	$ --	--	$--	$--	$ --	$ --	$ 87,612
Cash proceeds received from the issuance of shares and warrants to chairman of the Board of Directors	178,572	2,004,000	--	--	--	--	--	--	--	2,004,000
Net proceeds from the issuance of common stock via private placement equity offering, net										

of offering costs of $3,467,352.....	2,225,139	35,083,440	--	--	--	--	--	--	--	35,083,440
Net loss for the year ended December 31, 1992.....	--	--	--	--	--	--	--	(5,323,737)	--	(5,323,737)
BALANCE AT DECEMBER 31, 1992.....	4,318,024	37,175,052	--	--	--	--	--	(5,323,737)	--	31,851,315
Repurchase and cancellation of common stock...	(60,343)	(2,522)	--	--	--	--	--	--	--	(2,522)
Share cancellation...	(1,072)	--	--	--	--	--	--	--	--	--
Net proceeds from the issuance of common stock via private placement equity offering, net of offering costs of $1,486,383.....	438,540	12,326,885	--	--	--	--	--	--	--	12,326,885
Net loss for the year ended December 31, 1993.....	--	--	--	--	--	--	--	(15,328,143)	--	(15,328,143)
BALANCE AT DECEMBER 31, 1993.....	4,695,149	49,499,415	--	--	--	--	--	(20,651,880)	--	28,847,535
Net proceeds from the issuance of common stock via private placement equity offering, net of offering costs of $85,823.....	25,001	701,677	--	--	--	--	--	--	--	701,677
Proceeds from stock options exercised.....	79	1,375	--	--	--	--	--	--	--	1,375
Net loss for the year ended December 31, 1994.....	--	--	--	--	--	--	--	(19,499,283)	--	(19,499,283)
BALANCE AT DECEMBER 31, 1994.....	4,720,229	50,202,467	--	--	--	--	--	(40,151,163)	--	10,051,304
Net proceeds from the issuance of Series A convertible preferred stock via private placement equity offering, net of offering costs of $1,478,541.....	--	--	95,447.004	30,496,204	--	--	--	--	--	30,496,204
Share cancellation...	(179)	--	--	--	--	--	--	--	--	--
Exchange of warrants for common stock...	104,418	--	--	--	--	--	--	--	--	--
Issuance of common stock for purchased research and development....	98,574	1,155,750	--	--	--	--	--	--	--	1,155,750
December 1995 proceeds received from issuance of shares to a member of the Board of Directors.....	5,715	67,000	--	--	--	--	--	--	--	67,000
Proceeds from stock options exercised.....	4,653	56,264	--	--	--	--	--	--	--	56,264
Unrealized gains on securities available-for-sale.....	--	--	--	--	--	--	--	--	24,178	24,178
Net loss for the year ended December 31, 1995.....	--	--	--	--	--	--	--	(19,992,475)	--	(19,992,475)
Comprehensive loss.....	--	--	--	--	--	--	--	--	--	(19,968,297)
BALANCE AT DECEMBER 31, 1995.....	4,933,410	51,481,481	95,447.004	30,496,204	--	--	--	(60,143,638)	24,178	21,858,225

See accompanying notes.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (CONTINUED)
DECEMBER 31, 1998

	COMMON STOCK		PREFERRED STOCK SERIES A		PREFERRED STOCK SERIES B		NOTES RECEIVABLE FROM OFFICERS	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT		
Net proceeds from the issuance of Series A convertible preferred stock via private placement equity offering, net of offering costs of $130,000.....	--	--	50,746.268	16,870,000	--	--	--	--
Net proceeds from the issuance of Series B convertible preferred stock via private placement equity offering, net of offering costs of $40,000.....	--	--	--	--	14,925.373	4,960,000	--	--
Exchange of warrants for common stock...	151	--	--	--	--	--	--	--
Proceeds from stock options exercised.....	1,974	23,121	--	--	--	--	--	--
Proceeds from common stock warrants exercised.....	7,937	305,558	--	--	--	--	--	--
Unrealized losses on securities available-for-sale.....	--	--	--	--	--	--	--	--
Net loss for the year ended December 31, 1996.....	--	--	--	--	--	--	--	(13,928,189)
Comprehensive loss.....	--	--	--	--	--	--	--	--
BALANCE AT DECEMBER 31, 1996.....	4,943,472	51,810,160	146,193.272	47,366,204	14,925.373	4,960,000	--	(74,071,827)
Net proceeds from the issuance of common stock via initial public offering, net of offering costs of $3,197,750.....	3,000,000	26,802,250	--	--	--	--	--	--
Net proceeds from the issuance of common stock via follow-on public offering, net of offering costs of $2,538,000	2,300,000	34,262,000	--	--	--	--	--	--
Net proceeds from the issuance of common stock via private placement equity offering.....	300,000	3,000,000	--	--	--	--	--	--

Conversion of preferred stock to common stock.....	4,784,902	52,326,204	(146,193.272)	(47,366,204)	(14,925.373)	(4,960,000)	--	--	
Proceeds from stock options exercised and stock awards...	50,045	592,274	--	--	--	--	--	--	
Non-employee stock option compensation expense.....	--	100,186	--	--	--	--	--	--	
Unrealized losses on securities available-for-sale.....	--	--	--	--	--	--	--	--	
Net loss for the period ended December 31, 1997.....	--	--	--	--	--	--	--	(23,026,294)	
Comprehensive loss.....	--	--	--	--	--	--	--	--	
BALANCE AT DECEMBER 31, 1997.....	15,378,419	168,893,074	--	--	--	--	--	(97,098,121)	
Proceeds from stock options exercised and stock awards...	8,570	86,992	--	--	--	--	--	--	
Non-employee stock option compensation expense.....	--	422,923	--	--	--	--	--	--	
Restriced shares issued to non-employees.....	51,835	--	--	--	--	--	--	--	
Proceeds from stock sold via employee stock purchase plan..	95,535	215,646	--	--	--	--	--	--	
Notes receivable from officers..	--	--	--	--	--	--	(380,000)	--	
Unrealized gains on securities available-for-sale.....	--	--	--	--	--	--	--	--	
Net loss for the period ended December 31, 1998.....	--	--	--	--	--	--	--	(24,971,911)	
Comprehensive loss.....	--	--	--	--	--	--	--	--	
BALANCE AT DECEMBER 31, 1998.....	15,534,359	$169,618,635	--	$ --	--	$ --	$(380,000)	$(122,070,032)	

	ACCUMULATED COMPREHENSIVE INCOME	TOTAL
Net proceeds from the issuance of Series A convertible preferred stock via private placement equity offering, net of offering costs of $130,000.....	--	16,870,000
Net proceeds from the issuance of Series B convertible preferred stock via private placement equity offering, net of offering costs of $40,000.....	--	4,960,000
Exchange of warrants for common stock...	--	--
Proceeds from stock options exercised.....	--	23,121
Proceeds from common stock warrants		

exercised.....	--	305,558	
Unrealized losses on securities available-for-sale.....	(34,995)	(34,995)	
Net loss for the year ended December 31, 1996.....	--	(13,928,189)	
Comprehensive loss.....	--	(13,963,184)	
BALANCE AT DECEMBER 31, 1996.....	(10,817)	30,053,720	
Net proceeds from the issuance of common stock via initial public offering, net of offering costs of $3,197,750.....	--	26,802,250	
Net proceeds from the issuance of common stock via follow-on public offering, net of offering costs of $2,538,000	--	34,262,000	
Net proceeds from the issuance of common stock via private placement equity offering.....	--	3,000,000	
Conversion of preferred stock to common stock.....	--	--	
Proceeds from stock options exercised and stock awards...	--	592,274	
Non-employee stock option compensation expense.....	--	100,186	
Unrealized losses on securities available-for-sale.....	(23,832)	(23,832)	
Net loss for the period ended December 31, 1997.....	--	(23,026,294)	
Comprehensive loss.....	--	(23,050,126)	
BALANCE AT DECEMBER 31, 1997.....	(34,649)	71,760,304	
Proceeds from stock options exercised and stock awards...	--	86,992	
Non-employee stock option compensation expense.....	--	422,923	
Restriced shares issued to non-employees.....	--	--	
Proceeds from stock sold via employee stock purchase plan..	--	215,646	
Notes receivable from officers..	--	(380,000)	
Unrealized gains on securities available-for-sale.....	31,019	31,019	
Net loss for the period ended December 31, 1998.....	--	(24,971,911)	
Comprehensive loss.....	--	(24,940,892)	
BALANCE AT			

DECEMBER 31, 1998.....	$(3,630)	$47,164,973

See accompanying notes.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31,			PERIOD FROM SEPTEMBER 4, 1991 (DATE OF INCORPORATION) TO DECEMBER 31,
	1998	1997	1996	1998
OPERATING ACTIVITIES				
Net loss.....	$(24,971,911)	$(23,026,294)	$(13,928,189)	$(122,070,032)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization.....	1,880,535	1,748,618	1,658,475	10,090,414
Noncash research and development expense...	--	--	--	1,155,750
Noncash interest expense.....	--	--	--	25,918
Noncash rent expense...	(42,986)	74,109	54,216	525,411
Noncash compensation expense.....	422,923	100,186	--	523,109
Investment premium (discount) amortization (accretion).....	200,118	(177,947)	111,315	544,232
Changes in assets and liabilities:				
Collaboration agreement receivables.....	428,540	(3,683,031)	--	(3,254,491)
Prepaid expenses and other current assets.....	(819,009)	155,765	(236,812)	(920,136)
Notes receivable from officers.....	71,812	100,886	(46,200)	(95,224)
Other assets.....	144,173	239,551	(201,679)	(99,880)
Accounts payable.....	944,363	(488,661)	(406,298)	1,106,832
Accrued expenses.....	104,153	1,646,935	1,652,873	4,816,385
Total adjustments.....	3,334,622	(283,589)	2,585,890	14,418,320
Net cash used in operating activities...	(21,637,289)	(23,309,883)	(11,342,299)	(107,651,712)
INVESTING ACTIVITIES				
Purchases of securities available-for-sale.....	(63,959,431)	(85,765,759)	(27,113,929)	(225,751,217)
Proceeds from sales of securities available-for-sale.....	26,025,226	1,999,444	--	42,914,983
Proceeds from maturities of securities available-for-sale.....	56,622,884	47,845,281	16,439,000	139,567,952
Purchase of property and equipment.....	(2,801,332)	(2,540,798)	(1,046,640)	(16,677,066)

Dispositions of property and equipment.....	--	15,831	--	167,300
Net cash used in investing activities...	15,887,347	(38,446,001)	(11,721,569)	(59,778,048)
FINANCING ACTIVITIES				
Sale of common stock to founders.....	--	--	--	80,000
Proceeds from borrowings from shareholders.....	--	--	--	850,000
Sale of common stock via initial public offering, net of offering costs.....	--	26,802,250	--	26,802,250
Sale of common stock via follow-on public offering, net of offering costs.....	--	34,262,000	--	34,262,000
Sale of Series A preferred stock via private placement, net of offering costs.....	--	--	16,870,000	47,366,204
Sale of Series B preferred stock via private placement, net of offering costs.....	--	--	4,960,000	4,960,000
Sale of common stock via private placements, net of offering costs.....	--	3,000,000	--	52,307,084
Repurchase of common stock.....	--	--	--	(2,522)
Notes receivable from officers to acquire common stock.....	(380,000)	--	--	(380,000)
Proceeds from common stock options exercised.....	86,992	592,274	23,121	760,026
Proceeds from common stock warrants exercised.....	--	--	305,558	305,558
Proceeds from employee stock purchase plan....	215,646	--	--	215,646
Repayment of long-term obligations.....	(1,880,361)	(1,226,971)	(1,159,188)	(11,578,601)
Proceeds from the issuance of long-term obligations.....	3,193,161	1,719,806	616,300	15,844,601
Net cash provided by financing activities...	1,235,438	65,149,359	21,615,791	171,792,246
Net increase (decrease) in cash and cash equivalents.....	(4,514,504)	3,393,475	(1,448,077)	4,362,486
Cash and cash equivalents at beginning of period....	$ 8,876,990	$ 5,483,515	$ 6,931,592	$ --
Cash and cash equivalents at end of period.....	$ 4,362,486	$ 8,876,990	$ 5,483,515	$ 4,362,486
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES				
Acquisition of equipment pursuant to capital lease obligations.....	$ --	$ --	$ 85,532	$ 362,425
Conversion of convertible debt and				

related accrued interest into common stock.....	$ --	$ --	$ --	$ 875,918
Conversion of preferred stock into common stock.....	$ --	$ 52,326,204	$ --	$ 52,326,204
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION				
Cash paid during the period for interest obligations.....	$ 435,279	$ 377,544	$ 514,534	$ 2,438,848

See accompanying notes.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 1998

1.SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Cell Therapeutics, Inc. (the "Company") focuses on the discovery, development, and commercialization of small molecule drugs for the treatment of cancer and inflammatory and immune diseases. The Company's principal business strategy is to focus its development activities on therapeutic areas that represent large market opportunities which are not adequately served by existing therapies. The Company incorporated on September 4, 1991, but did not commence operations until February 1992.

The Company operates in a highly regulated and competitive environment. The manufacturing and marketing of pharmaceutical products require approval from, and are subject to, ongoing oversight by the Food and Drug Administration in the United States and by comparable agencies in other countries. Obtaining approval for a new therapeutic product is never certain and may take several years and involve expenditure of substantial resources. Competition in researching, developing, and marketing pharmaceutical products is intense. Any of the technologies covering the Company's existing products under development could become obsolete or diminished in value by discoveries and developments of other organizations.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company, its wholly owned subsidiary, and its 70% interest in a joint venture. All intercompany transactions and balances are eliminated in consolidation.

Cash and Cash Equivalents

The Company considers all highly liquid debt instruments with maturities of three months or less at the time acquired to be cash equivalents. Cash equivalents represent short-term investments consisting of investment-grade corporate and government obligations, carried at cost, which approximates market value.

Securities Available-for-Sale

Management determines the appropriate classification of debt securities at the time of purchase. Management currently classifies its investment portfolio as available-for-sale and carries the securities at fair value based on quoted market prices with unrealized gains and losses included in accumulated comprehensive income (loss). The amortized cost of debt securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in investment income. Realized gains and losses and declines in value judged to be other

than temporary on available-for-sale securities are included in investment income. The cost of securities sold is based on the specific identification method. Interest on securities classified as available-for-sale is included in investment income.

Management of Credit Risk

The Company is subject to concentration of credit risk primarily from its cash investments. Under the Company's investment guidelines, credit risk is managed by diversification of the investment portfolio and by the purchase of investment-grade securities.

Collaboration Agreement Receivables and Revenues

Collaboration agreement receivables represent amounts earned, but not yet collected, under collaboration and license agreements. Revenue under collaboration agreements represents reimbursement of development costs, license fees, nonrefundable upfront fees and milestone payments. Revenue from nonrefundable upfront fees is recognized upon satisfaction of related obligations. Other revenue under collaboration agreements is recognized as the earnings process is completed, based on the provisions of each agreement.

Property and Equipment

Property and equipment, including assets pledged as security in financing agreements, are carried at cost, less accumulated depreciation and amortization. Leasehold improvements are amortized over the lesser of the useful life or the term of the applicable lease using the straight-line method. Depreciation commences at the time assets are placed in service and is computed using the straight-line method over the estimated useful lives of the assets (three to five years).

Stock-Based Compensation

The Company has elected to follow Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations in accounting for its employee stock options. Generally, stock compensation, if any, is measured as the difference between the exercise price of a stock option and the fair market value of the Company's stock at the date of grant which is then amortized over the related vesting period.

Under SFAS 123, "Accounting for Stock-Based Compensation," the Company is required to value stock options granted to non-employees and recognize compensation expense. The Company uses the Black-Scholes single-option approach to value these options, which are then amortized on a straight-line basis over the shorter of the vesting period or the life of the respective contract.

Stock-based awards granted to non-employees are expensed based on the fair value of the award at the date that related performance has been completed.

Net Loss and Pro Forma Net Loss per Share

Basic earnings per share is based on the weighted average number of common shares outstanding for the period and excludes any dilutive effects of options, warrants and convertible securities. Diluted earnings per share assumes the conversion of all dilutive securities, such as options, warrants and convertible preferred stock.

As all preferred stock converted to common stock at the closing of the Company's initial public offering in March 1997, pro forma basic and diluted loss per share are computed on the basis of the average number of common shares outstanding plus the effect of preferred shares using the "if-converted" method.

Other Financial Instruments

At December 31, 1998 and 1997, the carrying value of financial instruments such as receivables and payables approximated their fair values, based on the short-term maturities of these instruments. Additionally, the carrying value of long-term liabilities approximated fair values because the underlying interest rates reflect market rates at the balance sheet dates.

Income Taxes

The Company accounts for income taxes using the liability method under Statement of Accounting Standards No. 109, "Accounting for Income Taxes."

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Other Risks and Uncertainties

The Company is relying on a single contract manufacturer for the production of lisofylline ("LSF") for preclinical and clinical trials and for the subsequent commercial requirements.

New Accounting Pronouncements

As of January 1, 1998, the Company adopted Statement 130, "Reporting Comprehensive Income." Statement 130 establishes new rules for the reporting and display of comprehensive income and its components; however, the adoption of this Statement had no impact on the Company's net income or shareholders' equity. Statement 130 requires unrealized gains or losses on the Company's available-for-sale securities, which prior to adoption were reported separately in shareholders' equity, to be included in other comprehensive income. Prior year financial statements have been reclassified to conform to the requirements of Statement 130.

In 1997, the FASB issued Statement No. 131, "Disclosures about Segments of an Enterprise and Related Information," which has been adopted by the Company in 1998. The new Statement supersedes FASB Statement No. 14, "Financial Reporting for Segments of a Business Enterprise." Companies will be required to report each segment and related information, as defined in Statement 131, in the Company's notes to the financial statements. The Company does not currently have any reportable segments.

Reclassifications

Certain prior year items have been reclassified to conform to the current year presentation.

2.SECURITIES AVAILABLE-FOR-SALE

Securities available-for-sale consist of the following as of December 31:

	1998		
	AMORTIZED	GROSS UNREALIZED	GROSS UNREALIZED

	COST	GAINS	LOSSES	FAIR VALUE
U.S. government obligations...	$ 2,814,085	$22,335	$ (283)	$ 2,836,137
Municipal government obligations.....	1,135,047	1,815	--	1,136,862
Corporate obligations.....	38,764,104	17,923	(45,420)	38,736,607
	$42,713,236	$42,073	$(45,703)	$42,709,606

	1997			
	AMORTIZED COST	GROSS UNREALIZED GAINS	GROSS UNREALIZED LOSSES	FAIR VALUE
U.S. government obligations...	$32,410,184	$ 6,274	$(23,100)	$32,393,358
Corporate obligations.....	29,191,849	2,863	(20,686)	29,174,026
	$61,602,033	$ 9,137	$(43,786)	$61,567,384

As of December 31, 1998 and 1997, the securities available-for-sale had contractual maturities of less than one year. Expected maturities will differ from contractual maturities because issuers of the securities may have the right to prepay obligations without prepayment penalties.

3.PROPERTY AND EQUIPMENT

Property and equipment are composed of the following as of December 31:

	1998	1997
Leasehold improvements.....	$ 4,877,241	$ 4,722,563
Lab equipment.....	5,630,646	4,303,332
Furniture and office equipment.....	6,009,787	4,690,447
	16,517,674	13,716,342
Less: accumulated depreciation and amortization.....	9,691,777	7,811,242
	$ 6,825,897	$ 5,905,100

As of both December 31, 1998 and 1997, furniture and office equipment included $232,585 of equipment acquired under capitalized leases. Accumulated depreciation related to this equipment totaled $195,521 and $149,004 at December 31, 1998 and 1997, respectively. These leases are secured by the underlying assets.

4.CAPITAL STOCK

In 1992, the Company completed a private placement of 2,225,139 shares of common stock generating net proceeds of $35.1 million. In 1993, the Company concluded a second equity financing through a private offering of common stock and warrants generating net proceeds of $12.3 million.

In 1994, the Company sold additional units of common stock and warrants under terms equivalent to those of the second round of equity financing. The Company received net proceeds of $702,000.

In 1995, the Company concluded a third round of equity financing through a private offering of Series A convertible preferred stock generating net proceeds of $30.5 million. In 1996, the Company concluded two rounds of equity financing through private offerings of Series A convertible preferred stock generating net proceeds of $16.9 million.

In 1996, the Company also completed a placement of Series B convertible preferred stock to Johnson & Johnson Development Corporation generating net proceeds of $5.0 million.

In November 1996, the Board of Directors approved a shareholder rights plan whereby a Right attaches to each share of common stock. Upon the occurrence of certain acquisition related events, each Right entitles the holder of each outstanding share of common stock to purchase one one-thousandth of a share of Series C preferred stock at $175 per unit, subject to adjustment. Upon exercise, each holder of a Right will have the right to receive value equal to two times the exercise price of the Right. A total of 100,000 shares of Series C preferred stock are reserved for issuance upon exercise of the Rights.

On March 26, 1997 the Company completed an initial public offering (the "IPO") of 3 million shares of its common stock at an offering price of $10.00 per share, resulting in net proceeds of $26.8 million. Concurrent with the closing of the IPO, the Company sold 300,000 shares of common stock to Johnson & Johnson at a price of $10.00 per share, resulting in net proceeds of $3.0 million.

On October 27, 1997 the Company completed a follow-on public offering of 2.3 million shares of its common stock at an offering price of $16 per share, resulting in net proceeds of $34.3 million.

Common Stock Reserved

A summary of common stock reserved for issuance is as follows as of December 31:

	1998	1997
Equity Incentive Plan	3,771,397	2,297,967
Employee Stock Purchase Plan	190,179	285,714
Warrants	350,000	--
Restricted Share Rights	103,665	--
	4,415,241	2,583,681

5.CONSULTING AND EMPLOYMENT AGREEMENTS

Directors, Officers, and Employees

The Company has an employment agreement with its President and Chief Executive Officer. The agreement expires in 1999, and provides for an annual base salary of approximately $433,000 as of January 1, 1999, and discretionary incentive bonus awards.

The Company's President and Chief Executive Officer has $84,766 outstanding at December 31, 1998 under a loan made to him by the Company in 1993, which accrues interest at 5.35%. The Company forgave and expensed $67,000 plus accrued interest on each of December 17, 1998 and December 17, 1997. The Company will forgive the remaining $66,000 plus accrued interest on December 17, 1999. The remaining balance is included in other current assets. Forgiveness of amounts remaining due under the loan will be forfeited upon certain termination-related circumstances and will be accelerated upon certain events, including a change in

ownership of the Company, or upon the Company's attaining a minimum public market capitalization. The loan is secured by 5,714 shares of common stock.

In 1996, the Company advanced a $35,000 non-interest bearing loan to its Executive Vice President, Marketing and Business Development in connection with his relocation. The Company forgave one-half of the loan in April 1997 and the remaining balance in April 1998.

The Company has also entered into severance agreements with certain of its officers having a term of one year.

In December 1998, upon recommendation by the Compensation Committee of the Board of Directors, the Company extended loans totaling $380,000 to six executive officers on a full recourse basis, in lieu of payment of cash bonuses for 1998. Each of the notes has a term of four years and bears interest at approximately 5%. The full balance of principal and accumulated interest is due at maturity. The executives used the funds to purchase shares of the Company's common stock on the open market.

Advisory Boards

The Company has entered into consulting agreements with the members of its Scientific and Clinical Advisory Boards ("Advisory Boards") providing for the periodic issuance of common stock and options to purchase common stock, and consulting fees. One agreement has an annual retainer of $10,000. The remaining advisory board members are paid consulting fees on a per diem basis. The consulting agreements with members of the Advisory Boards are cancelable upon 30 days' notice.

To date, the Company has also issued 138,087 options to members of its Advisory Boards. In July 1998 the Board of Directors approved the repricing of outstanding options. The repriced options are valued and expensed as they become exercisable. The amount expensed in 1998 was $157,118.

Consultants

To date, the Company has also issued 233,004 options to other consultants for various services. In July 1998 the Board of Directors approved the repricing of outstanding options. The repriced options are valued and expensed as they become exercisable. The amount expensed in 1998 was $265,805.

6.CONTRACTUAL ARRANGEMENTS AND COMMITMENTS

Licensed Technology

In March 1992, the Company entered into agreements with the Fred Hutchinson Cancer Research Center ("FHCRC") under the terms of which the Company has received worldwide licenses and options to technology, or technology claimed, for five U.S. patent applications. The Company paid initial license fees totaling $100,000 and issued 76,572 shares of common stock valued at $3,200 to the FHCRC for such technology. The Company is obligated to pay royalties on revenues resulting from future sales of products employing the technology and on revenues received from sublicenses for the technology, with minimum annual royalties of $50,000 prior to, and $100,000 after, the first commercial sale of such products. The agreements are for a term equal to the later of 15 years or the expiration of the last issued patent included within the licensed technology, unless terminated earlier for certain specified events, including the failure of the Company to take reasonable efforts to engage in research and development with respect to the licensed technology.

Facilities Lease

The Company has executed noncancelable operating leases for office and laboratory space that generally expire the first quarter of 2003, with two five-year renewal options at the then-current market rates. The lessor provided approximately $575,000 for leasehold improvements and rent concessions, which is being amortized over the initial lease term. The Company

has also executed a noncancelable operating lease for additional office space that expires in August, 2001, with one three-year renewal option at the then-current market rate. The lessor provided approximately $63,000 for leasehold improvements and rent concessions, which is being amortized over the initial lease term. Rent expense amounted to $1,152,340, $1,144,290, and $995,866 for the years ended December 31, 1998, 1997, and 1996, respectively. Future minimum annual rental payments under the leases approximate the following for the years ended December 31:

1999	$1,407,143
2000	1,409,043
2001	1,327,676
2002	1,164,942
2003	97,079
	$5,405,883

7.LONG-TERM OBLIGATIONS

	1998	1997
Master financing agreements:		
Due December 31, 1998, monthly payments of $55,827, including interest at 14.7%	$ --	$ 619,352
Due December 31, 1998, monthly payments of $45,820, including interest at 17.6%	--	500,802
Due August 1999, monthly payments of $20,523, including interest at 16.1%	154,718	358,019
Due December 2001, monthly payments of $44,196, including interest at 12.5%	1,415,150	1,719,806
Due September 2002, monthly payments of $59,811 including interest at 12.4%	2,259,775	--
Due December 2002, monthly payments of $18,290 including interest at 12.4%	713,251	--
Capital lease obligations	--	32,115
Deferred rent	525,411	568,397
	5,068,305	3,798,491
Less current portion	1,180,702	1,759,387
	$ 3,887,603	$2,039,104

For each borrowing, the Company granted the lessor a security interest in approximately the same net book value of specified fixed assets.

Annual maturities of the master financing agreements for 1999 through 2002, respectively, approximate $1,131,130, $1,105,039, $1,387,110 and $919,614.

8.STOCK OPTIONS AND WARRANTS

Stock Options

In 1994, shareholders approved the 1994 Equity Incentive Plan (the "1994 Plan") in replacement of the 1992 Stock Option Plan. The 1994 Plan provides for (a) the grant of incentive stock options (with terms not to exceed ten years), nonstatutory stock options and stock appreciation rights, (b) the award of stock bonuses, (c) the sale of stock, and (d) any other equity-based

or equity-related awards which the Plan Administrator determines to be consistent with the purpose of the 1994 Plan and the interests of the Company. Option-vesting schedules are specified by the Plan Administrator. The 1994 Plan also provides for the automatic grant of nonstatutory options to non-employee directors.

In July 1998, the Board of Directors approved the exchange of all outstanding options with exercise prices ranging from $3.03 to $16.06 per share for options with an exercise price of $2.906 per share, the fair value of the underlying common stock at that time. Accordingly, 1,612,934 shares were exchanged for new options with 10-year terms commencing July 31, 1998. All new options vest according to their original grant schedules but cannot be exercised until August 1, 1999. These amounts have been included as granted and canceled options in the summary activity table as shown below.

	SHARES UNDER OPTION	WEIGHTED AVERAGE EXERCISE PRICE PER SHARE
Balance January 1, 1996 (314,705 exercisable).....	761,720	$11.81
Granted.....	624,550	11.73
Canceled.....	(89,350)	11.79
Exercised.....	(1,975)	11.73
Balance December 31, 1996 (566,925 exercisable).....	1,294,945	11.77
Granted.....	575,874	13.90
Canceled.....	(52,331)	11.78
Exercised.....	(50,045)	11.15
Balance December 31, 1997 (791,265 exercisable).....	1,768,443	12.48
Granted.....	2,510,999	2.93
Canceled.....	(1,762,045)	12.29
Exercised.....	(8,570)	9.82
Balance December 31, 1998 (57,477 exercisable).....	2,508,827	$ 3.07

	OPTIONS OUTSTANDING			EXERCISABLE OPTIONS OUTSTANDING (WITHOUT RESTRICTION)	
RANGE OF EXERCISE PRICES	NUMBER OUTSTANDING 12/31/98	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER EXERCISABLE	WEIGHTED AVERAGE EXERCISE PRICE
$2.00-$2.45.....	13,615	9.67 Years	$ 2.13	5,715	$ 2.30
$2.70-$3.22.....	2,442,174	9.46 Years	$ 2.88	--	$ 0.00
$11.69-$16.06.....	53,038	6.17 Years	$12.17	51,762	$12.17
	2,508,827	9.39 Years	$ 3.07	57,477	$11.20

The weighted average fair value of options granted during 1998, 1997, and 1996 was $1.85, $5.53 and $2.34, respectively. As of December 31, 1998,

1,262,570 shares of common stock were available for future grants.

In 1996, the Company adopted the accounting provisions of Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"). SFAS 123 encourages, but does not require, entities to adopt the fair value method of accounting for their stock-based compensation plans. Under this method, compensation cost for stock-based compensation plans is measured at the grant date based on the fair value of the award and is recognized over the vesting period. Fair value is determined using a Black-Scholes option pricing model that takes into account (1) the stock price at the grant date, (2) the exercise price, (3) a four-year expected life of the options, (4) no expected dividends, and (5) risk-free interest rate of 5.5% in 1998 and rates ranging from 5.4% to 6.7%, and 5.4% to 7.8%, during 1997 and 1996, respectively, over the expected life of the options. The Company used a .91 volatility rate in 1998 and a .48 volatility rate in 1997. In accordance with the provisions of SFAS 123, the Company applies Accounting Principles Board Opinion No. 25 and related interpretations in accounting for its stock option plans and, accordingly, does not recognize compensation cost for options granted with exercise prices equal to or greater than fair value. Although not reflective of the effects of reported net loss in future years until the rules of SFAS 123 are applied to all outstanding non-vested options, if the Company elected to recognize compensation cost based on the fair value of the options granted at grant date as prescribed by SFAS 123, basic and diluted net loss and pro forma basic and diluted net loss per share would have been adjusted (increased) as follows for the years ended December 31:

	YEAR ENDED DECEMBER 31,		
	1998	1997	1996
Net loss:			
As reported	$(24,971,911)	$(23,026,294)	$(13,928,189)
Pro forma as adjusted	(27,553,633)	(23,800,008)	(14,539,614)
Basic and diluted net loss per share:			
As reported	$ (1.62)	$ (1.98)	$ (2.82)
Pro forma as adjusted	(1.79)	(2.05)	(2.94)
Pro forma basic and diluted net loss per share:			
As reported		(1.81)	(1.69)
Pro forma as adjusted		(1.87)	(1.77)

In accordance with generally accepted accounting principles, the Company considers all equity instruments issued to non-employees to be accounted for as variable equity instruments. The value of the instrument is amortized to expense over the vesting period with final valuation measured on the latter of the vesting date or date on which they become exercisable. At December 31, 1998, options to acquire 371,091 shares of common stock are considered variable options. During 1998, the Company recognized compensation related expense of $422,923, with the unamortized amount of approximately $393,000 as of December 31, 1998, to be amortized over the remaining vesting period (up to 20 months as of December 31, 1998).

As discussed in Note 11, the Company has also issued 103,665 restricted share rights to non-employees for which ownership by the non-employees vests upon the achievement of a future event. Compensation related to these rights will be measured as the event becomes probable with final valuation on the vesting date.

Warrants

During 1995, the Company offered to exchange shares of common stock for outstanding warrants to purchase common stock, issuing 104,569 shares of common stock in exchange for warrants to purchase 443,353

shares of common stock. During 1996, the Company concluded its offer to exchange shares of common stock for outstanding warrants of common stock, issuing 151 shares of common stock in exchange for warrants to purchase 377 shares of common stock. All such warrants had expired as of December 31, 1997.

In 1998 the Company issued warrants to purchase 350,000 shares of common stock of the Company in connection with a license agreement. The warrants expire November 12, 2008 and become exercisable only upon the occurrence of certain exercise events, including a license or sale by the Company of any licensed patent rights subject to the agreement to a third party or a change of control of the Company, as defined. The purchase price per share is the lesser of $20.00 or the average closing stock price for the 30 consecutive trading days ending on the date of the exercise event. Compensation related to these warrants will be measured as any of the exercise events become probable with the final valuation on the exercisable date.

Employee Stock Purchase Plan

The Company maintains an Employee Stock Purchase Plan (the "Purchase Plan"). 285,714 shares of the Company's common stock have been reserved for purchase under the Purchase Plan, under which eligible employees may purchase a limited number of shares of the Company's common stock at 85% of the lower of the subscription date fair market value and the purchase date fair market value. There are two six-month offerings per year. Under the Purchase Plan, the Company issued 95,535 shares to employees in 1998. There is a balance of 190,179 shares reserved for future purchases at December 31, 1998.

9.NET LOSS PER SHARE

Basic and diluted loss per share is calculated using the average number of common shares outstanding. Pro forma basic and diluted loss per share is computed on the basis of the average number of common shares outstanding plus the effect of convertible preferred shares using the if-converted method as follows:

	YEAR ENDED DECEMBER 31,		
	1998	1997	1996
Net loss (A)	$(24,971,911)	$(23,026,294)	$(13,928,189)
Weighted average outstanding:			
Common stock (B)	15,409,848	11,634,032	4,939,388
Convertible preferred stock	--	1,101,183	3,288,500
Pro forma total weighted average outstanding (C)	15,409,848	12,735,215	8,227,888
Loss per share:			
Basic and diluted (A/B)	$ (1.62)	$ (1.98)	$ (2.82)
Pro forma basic and diluted (A/C)		$ (1.81)	$ (1.69)

10.INCOME TAXES

As of December 31, 1998, the Company had net operating tax loss carryforwards of approximately $116.6 million and research and development credit carryforwards of approximately $4.3 million. The carryforwards begin to expire in the year 2007. Due to prior rounds of equity financing (see Note 4) and the Company's initial public offering of common stock in March 1997, the Company has incurred "ownership changes" pursuant to applicable regulations in effect under the Internal Revenue Code of 1986, as amended. Accordingly, the Company's use of losses incurred through the date of these ownership changes will be limited to approximately

$5.6 million per year during the carryforward period. To the extent that any single-year loss is not utilized to the full amount of the limitation, such unused loss is carried over to subsequent years until the earlier of its utilization or the expiration of the relevant carryforward period.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company has recognized a valuation allowance equal to the deferred tax assets due to the uncertainty of realizing the benefits of the assets. The Company's valuation allowance increased $9,905,000, $8,772,000 and $4,785,000 during 1998, 1997 and 1996, respectively. Significant components of the Company's deferred tax liabilities and assets as of December 31 are as follows:

	1998	1997
Deferred tax assets:		
Net operating loss carryforwards	$39,646,000	$31,538,000
Research and development tax credit carryforwards	4,248,000	2,783,000
Accruals on financial statements in excess of tax returns	573,000	458,000
Accruals on tax returns in excess of financial statements	(56,000)	(5,000)
Charitable contributions carryforward	42,000	33,000
Depreciation in financial statements in excess of tax	684,000	425,000
Net deferred tax assets	$45,137,000	$35,232,000
Valuation allowance for deferred tax assets	$45,137,000	$35,232,000

11.SIGNIFICANT AGREEMENTS

BioChem Therapeutic Inc.: On March 7, 1995, the Company and BioChem Therapeutic Inc. ("BioChem"), a wholly owned subsidiary of BioChem Pharma, Inc., signed collaboration and supply agreements (the "BioChem Collaboration Agreement" and the "BioChem Supply Agreement," respectively). The BioChem Collaboration Agreement grants an exclusive license to enable BioChem to seek Canadian regulatory approval for, and to use and sell, the Company's LSF and/or Apra (CT-2584) compounds (and compositions thereof) (collectively, the "cti Compounds") in Canada. Under the BioChem Collaboration Agreement, the Company is entitled to receive payments upon the satisfaction of specified product development milestones and royalties on all sales, if any. The BioChem Collaboration Agreement terminates upon the expiration of the last to expire patents covering the cti Compounds or, absent a patent, upon the tenth anniversary of the first commercial sale of such cti Compound. The Company recorded milestone payments of $100,000, $250,000 and $100,000 under the BioChem Collaboration Agreement in 1998, 1996 and 1995, respectively. Under the BioChem Supply Agreement, the Company is to supply BioChem the cti Compounds at a percentage mark-up above cost. The BioChem Supply Agreement terminates 20 years from the date of termination of the BioChem Collaboration Agreement with respect to each of the cti Compounds.

Schering AG: In February 1996, the Company entered into an agreement with Schering AG ("Schering") pursuant to which, among other things, the Company and Schering would collaborate in the financing, research, development and commercialization of LSF and Apra on the terms and conditions specified therein. Upon execution of the agreement, Schering paid the Company a $3.0 million nonrefundable signing fee. The remainder of the agreement was contingent upon Schering finding the clinical trial results and related data from the Company's Phase II bone marrow transplant ("BMT") trial acceptable within thirty days after its receipt. The Company furnished Schering with this data in late February 1996. On April 2, 1996, after a mutual extension of the

thirty-day review period, Schering informed the Company that it did not wish to activate the agreement based

on, among other factors, (i) its view that one of the endpoints of the Phase II BMT trial, white blood cell recovery, was not met and (ii) its view that the trial data regarding mortality rate and incidence of serious and fatal infection were difficult to interpret and that, as a result, Schering could not determine that the data were meaningful.

Johnson & Johnson: In November 1996, the Company entered into a collaboration and license agreement with Ortho Biotech Inc. and the R.W. Johnson Pharmaceutical Research Institute (a division of Ortho Pharmaceutical Corporation) each of which are wholly owned subsidiaries of Johnson & Johnson (collectively, "Johnson & Johnson") for the joint development and commercialization of LSF, to prevent or reduce the toxic side effects among cancer patients receiving high-dose radiation and/or chemotherapy followed by BMT. Upon execution of the collaboration agreement, Johnson & Johnson paid the Company a $5.0 million nonrefundable license fee. In addition, Johnson & Johnson Development Corporation ("JJDC"), a wholly owned subsidiary of Johnson & Johnson, purchased 14,925.373 shares of the Company's newly issued Series B convertible preferred stock at $335 per share for an aggregate purchase price of $5.0 million. In September 1997, Johnson & Johnson made a $1.0 million payment to the Company and exercised an option under the Collaboration Agreement to expand its participation in development of LSF to include the treatment of patients with acute myeloid leukemia ("AML") undergoing high-dose chemotherapy. Under the terms of the Collaboration Agreement, Johnson & Johnson funded $10.8 million of the Company's development costs for 1997. In July 1998, after reviewing the results of the Company's Phase III clinical trial for LSF among patients receiving BMT from related donors, in which the primary endpoints were not met, Johnson & Johnson reached an agreement in principle with the Company to revise the Collaboration Agreement. On November 16, 1998, the Company and Johnson & Johnson formally amended the Collaboration Agreement. Under the terms of the amended Collaboration Agreement, Johnson & Johnson agreed to pay the Company $13.1 million for development cost reimbursements for BMT and AML for the year ending December 31, 1998. After reviewing both the interim data from the Company's pivotal Phase II/III trial for LSF in patients with acute lung injury and acute respiratory distress syndrome and the results of the Company's Phase III trial for LSF following induction chemotherapy for AML, Johnson & Johnson may elect to resume responsibility for the development and commercialization of LSF subject to certain additional payments upon resumption of its obligations. If Johnson & Johnson does not elect to resume development activities, then the Company will be free to license LSF to other third parties. As of December 31, 1998, the Company had recorded approximately $40.8 million in equity payments, license and milestone fees, and development cost reimbursements with Johnson & Johnson.

Supply Agreement

ChiRex, Ltd.: In January 1997, the Company entered into a supply agreement with ChiRex, Ltd. ("ChiRex"), a British manufacturer of pharmaceutical intermediates and active ingredients, for the manufacture and supply of LSF and corresponding intermediate compounds. Under the terms of the agreement, ChiRex will manufacture and supply LSF bulk drug product and a key intermediate compound in sufficient quantities to meet the Company's requirements for ongoing and future clinical trials and commercial requirements during launch and commercialization. The agreement will expire on December 31, 2001, but may be terminated by the Company upon 12 months' written notice prior to such date. In October 1998, the Company entered into an additional agreement with ChiRex for additional manufacturing services for pre-validation lots of LSF.

Other Agreements

Lipomed: In October 1995, the Company purchased all of the intellectual property of Lipomed Corporation ("Lipomed") for $1,155,750 consisting of 98,574 shares of common stock. The agreement also provides for a possible future payment to Lipomed of $100,000 upon the occurrence of certain events.

CELL THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS--(CONTINUED)

Cell City, LLC Joint Venture: In January 1998, the Company entered into an agreement with City of Hope National Medical Center ("COH") to form a joint venture ("Cell City, LLC") to discover and develop a new class of drugs to treat diabetes and its complications. Under the terms of the agreement, the Company contributed $100,000 to be paid as a license fee and COH contributed the intellectual property and technology valued by the parties at $200,000. Cell City, LLC then made a capital distribution of $100,000 to COH. Additionally, the Company will fund the first two years of the venture's operations up to $400,000 in the form of additional capital contributions, of which $200,000 was made in 1998. Cell City, LLC has future minimum royalty obligations to COH. The Company holds a 70% interest in the joint venture and COH holds 30%. Under the terms of the agreement, the Company may be required to make additional capital contributions in the future. The term of the agreement is 15 years unless dissolved earlier as defined.

During 1998, the Company has recorded total expenses of approximately $520,000 related to Cell City, LLC activities.

The agreement provides the Company with a buy-out right whereby the Company can purchase all interests not owned by the Company at fair market value upon certain defined conversion events occurring after January 5, 2000. The agreement also provides COH the right to sell its ownership interest to the Company, at fair market value, if certain conversion events occur and if the Company does not exercise its buy-out right. The Company would issue common stock to acquire such interests.

PG-TXL Company, L.P.: On June 30, 1998, the Company entered into an agreement with PG-TXL Company, L.P. granting the Company an exclusive worldwide license for the rights to polyglutamic acid paclitaxel ("PG-TXL"), a water-soluble form of the cancer drug Taxol(R), and to all potential uses of PG-TXL Company, L.P.'s polymer technology. Under the terms of the agreement, the Company acquired the rights to fund the research, development, manufacture, marketing and sale of anti-cancer drugs developed using this polymer technology. The Company will be obligated to make milestone payments upon the attainment of significant achievements, as defined in the agreement. The Company also granted warrants to purchase shares of the Company's common stock to PG-TXL Company, L.P. The Company is obligated to meet certain development requirements by June 30, 2002 to maintain exclusive license rights.

The Company also entered into Signing Bonus and Restricted Stock and Share Grant Agreements and Consulting Agreements with certain individuals affiliated with PG-TXL Company, L.P. (the "PG-TXL Affiliates"). Under the terms of these agreements, the Company has issued 51,835 restricted shares of common stock. These shares will vest upon the issuance of a patent. The Company also granted 103,665 restricted share rights to the PG-TXL Affiliates, which also vest upon certain performance conditions. The Company will begin to record compensation expense at the time the vesting of the restricted shares and share rights become probable. The Company will pay approximately $300,000 in consulting fees to the PG-TXL Affiliates over three years. The restricted shares are held in escrow at the Company.

SynChem Research, Inc.: On December 11, 1998, the Company entered into an exclusive option agreement with SynChem Research, Inc. ("SynChem") to obtain an exclusive worldwide license (the "SynChem License") to a class of synthetic small molecule compounds which are inhibitors of tumor angiogenesis. The Company's option to acquire the SynChem License shall be exercisable at the end of a six-month evaluation period upon the payment of an initial license fee. Under the terms of the option agreement, the SynChem License will provide that the Company will fund initial research studies to evaluate the potential of the compounds and SynChem will provide the compounds.

ITEM 9. CHANGES IN DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL

DISCLOSURE.

None.

PART III

The information required by Part III, Items 10, 11, 12, and 13, is included in the Company's Proxy Statement relating to the Company's annual meeting of shareholders, and is incorporated herein by reference. Such Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the close of the Company's fiscal year ended, December 31, 1998.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a) Financial Statements and Financial Statement Schedules

(i) Financial Statements

Report of Ernst & Young LLP, Independent Auditors
Consolidated Balance Sheets
Consolidated Statements of Operations
Consolidated Statements of Shareholders' Equity
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements

(ii) Financial Statement Schedules

None.

All schedules have been omitted since they are either not required, are not applicable, or the required information is shown in the financial statements or related notes.

(b) Reports on Form 8-K.

None

(c) Exhibits

EXHIBIT NUMBER	DESCRIPTION
3.1(1)	Registrant's Restated Articles of Incorporation.
3.2(2)	Registrant's Articles of Amendment to Restated Articles of Incorporation Establishing a Series of Preferred Stock (Series C Preferred Stock).
3.3(2)	Registrant's Articles of Amendment to Restated Articles of Incorporation of Cell Therapeutics, Inc. Effecting a Reverse Stock Split.
3.4(3)	Registrant's Articles of Amendment to Restated Articles of Incorporation of Undesignating Series A and Series B Preferred Stock.
3.5(4)	Registrant's Restated Bylaws.
4.1(5)	Form of Rights Agreement dated as of November 11, 1996, between the Registrant and Harris Trust Company of California, which includes the Form of Rights Certificate as Exhibit A, the Summary of Rights to Purchase Preferred Stock as Exhibit B and the Form of Certificate of Designation of the Series C Preferred Stock as Exhibit C.

EXHIBIT NUMBER	DESCRIPTION
10.1(6)	Lease Agreement between David A. Sabey and Sandra L. Sabey and the

	Registrant, dated March 27, 1992, as amended March 31, 1993 and October 13, 1993.
10.2(2)	Third Amendment to Lease Agreement between David A. Sabey and Sandra L. Sabey and the Registrant, dated as of September 10, 1996.
10.3(1)	Assignment of Lease between Manlove Travel and the Registrant, dated April 23, 1993.
10.4(2)	Letter Agreement between David A. Sabey, Sandra L. Sabey and the Registrant, dated as of September 6, 1996, amending the Assignment of Lease.
10.5(2)	Employment Agreement between the Registrant and James A. Bianco, dated as of December 17, 1996.
10.6	Lease Agreement between Selig Real Estate Holdings Six and the Registrant, dated as of May 6, 1998.
10.7(2)	Form of Strategic Management Team Severance Agreement (executed between the Registrant and each of the following persons: Jack W. Singer, Louis A. Bianco, Maruice J. Schwarz and Roger A. Lewis).
10.8(1)	Promissory Note between James A. Bianco, M.D. and the Registrant, dated December 23, 1993.
10.9(1)	Stock Pledge Agreement between James A. Bianco, M.D. and the Registrant, dated December 23, 1993.
10.10	Form of Promissory Note (executed on December 12, 1998, between the Registrant and each of the following persons: James A. Bianco, Jack W. Singer, Louis A. Bianco, Maurice J. Schwarz and Robert A. Lewis).
10.11(1)	1994 Equity Incentive Plan, as amended.
10.12(1)	1992 Stock Option Plan, as amended.
10.13(1)	1996 Employee Stock Purchase Plan.
10.14(4)	Letter Agreement between the Company and Kummell Investments Limited, dated September 17, 1996.
10.15+(6)	Collaboration Agreement by and between BioChem Therapeutic Inc. and the Registrant, dated March 7, 1995, as amended November 30, 1995 and December 6, 1995.
10.16+(6)	Supply Agreement by and between BioChem Therapeutic Inc. and the Registrant, dated March 7, 1995.
10.17+(2)	Supply Agreement by and between ChiRex, Ltd. and the Registrant, dated January 21, 1997.
10.18+(7)	Pre-Validation Agreement dated as of October 16, 1998, between the Registrant and ChiRex, Ltd.
10.19+(2)	Collaboration and License Agreement, dated as of November 8, 1996, by and between the Registrant and Ortho Biotech Inc. and The R.W. Johnson Pharmaceutical Research Institute, a division of Ortho Pharmaceutical Corporation.
10.20+	Amendment No. 1, dated November 16, 1998, to the Collaboration and License Agreement dated as of November 8, 1996, by and between the Registrant and Ortho Biotech Inc. and The R.W. Johnson Pharmaceutical Corporation.
10.21(2)	Stock Purchase Agreement, dated as of November 8, 1996, by and between the Registrant and Johnson & Johnson Development Corporation.
10.22(8)	Loan and Security Agreement, dated as of June 28, 1996, between the Registrant and Financing for Science International, Inc.
10.23(1)	Asset Purchase Agreement, dated of October 17, 1995, between Lipomed Corporation, its Stockholders and the Registrant, as amended.
10.24(6)	Form of Scientific Advisory Board Consulting Agreement.
10.25(6)	Form of Clinical Advisory Board Consulting Agreement.
10.26(9)	Master Loan and Security Agreement between the Company and the Transamerica Business Credit Corporation, dated as of December 9, 1997.
10.27+	License Agreement dated as of November 13, 1998, by and between PG-TXL Company, L.P. and the Registrant.
22.1	Subsidiaries of the Registrant.

EXHIBIT NUMBER	DESCRIPTION
23.1	Consent of Ernst & Young, LLP, independent auditors.
27.1	Financial Data Schedule.

- --------
+ Portions of these exhibits have been omitted pursuant to a request for confidential treatment.
(1) Incorporated by reference to exhibits to the Registrant's Registration Statement on Form S-1 (No. 33-4154).
(2) Incorporated by reference to exhibits to the Registrant's Registration Statement on Form S-1 (No. 333-20855).
(3) Incorporated by reference to exhibits to the Registrant's Registration Statement on Form S-3 (No. 333-36603).
(4) Incorporated by reference to exhibits to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 1996.
(5) Incorporated by reference to exhibits to the Registrant's Registration Statement on Form 8-A.
(6) Incorporated by reference to exhibits to the Registrant's Registration Statement on Form 10.
(7) Incorporated by reference to exhibits to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 1998.
(8) Incorporated by reference to exhibits to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 1996.
(9) Incorporated by reference to exhibits to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1997.

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, in the City of Seattle, State of Washington, on March 31, 1999.

Cell Therapeutics, Inc.

By _____/s/ James A. Bianc_____o
JAMES A. BIANCO, M.D. PRESIDENT AND CHIEF EXECUTIVE OFFICER

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

SIGNATURES	TITLE	DATE
_____/s/ Max E. Lin_____k MAX E. LINK, PH.D.	Chairman of the Board and Director	March 31, 1999
___/s/ James A. Bianc_____o JAMES A. BIANCO, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 31, 1999
___/s/ Louis A. Bianc_____o LOUIS A. BIANCO	Executive Vice President, Finance and Administration (Principal Financial Officer and Principal Accounting Officer)	March 31, 1999
____/s/ Jack W. Singe_____r JACK W. SINGER, M.D.	Director	March 31, 1999
____/s/ Jack L. Bowma_____n JACK L. BOWMAN	Director	March 31, 1999
_____/s/ Jeremy L. Curnock Coo_____k JEREMY L. CURNOCK COOK	Director	March 31, 1999
__/s/ Wilfred E. Jaege____r WILFRED E. JAEGER, M.D.	Director	March 31, 1999
__/s/ Terrence M. Morri___s TERRENCE M. MORRIS	Director	March 31, 1999

/s/ Mary O'Neil Mundinge__r MARY O'NEIL MUNDINGER, D.P.H.	Director	March 31, 1999
_/s/ Phillip M. Nudelma___n PHILLIP M. NUDELMAN, PH.D.	Director	March 31, 1999

EXHIBIT 10.6

ELLIOTT BAY OFFICE PARK
OFFICE LEASE

THIS LEASE, made the _____ day of _____, 1998, by and between SELIG REAL ESTATE HOLDINGS SIX, a Washington general partnership, whose address is 1000 Second Avenue, Suite 1800, Seattle, Washington, 98104-1046, hereinafter referred to as "Lessor" and Cell Therapeutics Inc., a Washington Corporation, whose address is 201 Elliott Avenue West, Suite 400, hereinafter referred to as "Lessee".

1. DESCRIPTION, Lessor in consideration of the agreements contained in this lease, does hereby lease to Lessee, upon the terms and conditions hereinafter set forth, that certain space consisting of the agreed upon square footage of approximately 11,955 rentable square feet (11,149 usable square feet), calculated according to the Building Owners and Managers Association International ("BOMA") standards, the exact square footage of which shall be determined by final drawings (hereinafter referred to as "Premises") situated on the 5th floor level of the Elliott Bay Office Park, 300 Elliott Avenue West, City of Seattle, State of Washington 98119, the legal description of which is:

Parcel A: All of Block 9, D.T. Denny's Waterfront Addition to the City of Seattle, according to the plat recorded in Volume 2 of Plats, Page 61, in King County, Washington.

Parcel B: Block 161, Seattle Tidelands.

2. TERM, The term of this lease shall be for a period of 36 months, commencing sixty (60) days after the space is delivered to Lessee by Lessor or upon the issuance of a certificate of occupancy, whichever occurs first, and ending 36 months thereafter, provided however, if Lessor has not delivered the space to Lessee by July 1, 1998, Lessee shall have the right to immediately terminate this lease and any advance payments made to Lessor shall be refunded.

3. RENT, Lessee covenants and agrees to pay Lessor rent each month in advance on the first day of each calendar month. Rent shall be computed at the annual base rental rate of $19.50 per rentable square foot. Rent for any fractional calendar month, at the beginning or end of the term, shall be the pro rated portion of the rent computed on an annual basis.

4. CONSIDERATION, As consideration for the execution of this lease, Lessee has this date paid to Lessor a security deposit in the sum of $19,500.00, receipt of which is hereby acknowledged. In the event Lessee fully complies with all the terms and conditions of this lease, but not otherwise, an amount equal to such sum shall be credited on the last month's rental on the term of this lease. Any portion of the sum remaining as of the expiration or termination of this lease shall be immediately paid to Lessee.

5. USES, Lessee agrees that Lessee will use and occupy said Premises for general office and related purposes and for no other purposes.

6. RULES AND REGULATIONS, Lessee and their agents, employees, servants or those claiming under Lessee will at all times observe, perform and abide by all of the Rules and Regulations printed on this instrument, or which may be hereafter promulgated by Lessor, all of which it is covenanted and agreed by the parties hereto shall be and are hereby made a part of this lease,

provided however, that any amendments thereto will be reasonable and applied on a non-discriminatory basis.

7. CARE AND SURRENDER OF PREMISES, Lessee shall take good care of the Premises and shall promptly make all necessary repairs except those required herein to be made by Lessor. Lessor agrees to make all necessary structural repairs to the building and the Premises, unless such repairs are necessitated by acts or omissions of Lessee. At the expiration or sooner termination of this lease, Lessee, without notice, will immediately and peacefully quit and surrender the Premises in good order, condition and repair (damage by reasonable wear, the elements, or fire excepted). Lessee shall be responsible for removal of all of Lessee's property from the Premises, including, but not limited to, the removal of Lessee's telephone equipment and signage. Lessee shall be responsible for repairing any damage to the Premises caused by such removal. If Lessee fails to remove and restore the Premises at lease expiration, then Lessor shall have the right to remove said property and restore the Premises and Lessee shall be responsible for all reasonable costs associated therewith. Lessee shall also be responsible for those reasonable costs incurred by Lessor for removing debris Lessee may discard in the process of preparing to vacate the Premises and for a final cleaning of the Premises, including, but not limited to, the cleaning, or replacement of carpets if damage is not caused by reasonable wear, and removal and disposal of Lessee's personal property remaining in the Premises.

8. ALTERATIONS, Lessee shall not make any alterations or improvements in, or additions to said Premises without first obtaining the written consent of Lessor, whose consent shall not be unreasonably withheld, conditioned or delayed. Lessor shall respond to any such notice by Lessee within fifteen (15) days. The failure of Lessor to respond within such time shall be acceptance thereof. Except as provided in Paragraphs 37 and 38 herein, all such alterations, additions and improvements shall be at the sole cost and expense of Lessee and shall become the property of Lessor and shall remain in and be surrendered with the Premises as a part thereof at the termination of this lease, without disturbance, molestation or injury.

9. RESTRICTIONS, Lessee will not use or permit to be used in said Premises anything that will increase the rate of insurance on said building or any part thereof, nor anything that may be dangerous to life or limb; nor in any manner deface or injure said building or any part thereof; nor overload any floor or part thereof; nor permit any objectionable noise or odor to escape or to be emitted from said Premises, or do anything or permit anything to be done upon said Premises in any way tending to create a nuisance or to disturb any other tenant or occupant of any part of said building. Lessee, at Lessee's expense, will comply with all health, fire and police regulations respecting Lessee's use of said Premises. The Premises shall not be used for lodging or sleeping, and no animals or birds will be allowed in the building.

10. WEIGHT RESTRICTIONS, Safes, furniture or bulky articles may be moved in or out of said Premises only at such hours and in such manner as will least inconvenience other tenants, which hours and manner shall be at the reasonable discretion of Lessor. No safe or other article of over 2,000 pounds shall be moved into said Premises without the consent of Lessor, whose consent shall not be unreasonably withheld, and Lessor shall have the right to locate the position of any article of weight in said Premises if Lessor so desires.

11. SIGN RESTRICTION, No sign, picture, advertisement or notice shall be displayed, inscribed, painted or affixed to any of the glass or woodwork of the building without the prior approval of Lessor. Lessor shall, at Lessor's expense, place Lessee's name on the lobby and 5th floor directory. Signage for Lessee's office suite shall be at Lessee's expense.

12. LOCKS, No additional locks shall be placed upon any doors of the Premises. Keys will be furnished to each door lock. At the termination of the lease, Lessee shall surrender all keys to the Premises whether paid for or not.

13. KEY, Lessor, his janitor, engineer or other agents may retain a pass key to said Premises to enable him to examine the Premises from time to

time with reference to any emergency or to the general maintenance of said Premises.

14. TELEPHONE SERVICE, If Lessee desires telephonic or any other electric connection, Lessor will direct the electricians as to where and how the wires are to be introduced, and without such directions no boring or cutting for wires in installation thereof will be permitted.

15. SERVICES, Lessor shall maintain Premises and the public and common areas of building, such as lobbies, stairs, corridor and restrooms, in reasonably good order and condition except for damage occasioned by the act of Lessee.

Lessor shall furnish Premises with electricity for lighting and operation of low power usage office machines, heat, normal office air-conditioning, and elevator services, during the ordinary business hours of the building. Air-conditioning units and electricity therefore for special air-conditioning requirements, such as for computer centers, shall be at Lessee's expense. Lessor shall also provide lighting replacement for Lessor furnished lighting, toilet room supplies, window washing with reasonable frequency, and customary janitor service.

Lessor shall not be liable to Lessee for any loss or damage caused by or resulting from any variation, interruption or any failure of said services due to any cause whatsoever. No temporary interruption or failure of such services incident to the making of repairs, alterations, or improvements, or due to accident or strike or conditions or events not under Lessor's control shall be deemed as an eviction of Lessee or relieve Lessee from any of Lessee's obligations hereunder, provided however, that Lessee shall be entitled to a rent abatement after an interruption of service continues for 72 consecutive hours.

In the event of any lack of attention on the part of Lessor and any dissatisfaction with the service of the building, or any unreasonable annoyance of any kind, Lessee is requested to make complaints at Lessor's building office and not to Lessor's employees or agents seen within the building. Lessee is further requested to remember that Lessor is as anxious as Lessee that a high grade service be maintained, and that the Premises be kept in a state to enable Lessee to transact business with the greatest possible ease and comfort. The rules and regulations are not made to unnecessarily restrict Lessee, but to enable Lessor to operate the building to the best advantage of both parties hereto. To this end Lessor shall have the right to waive from time to time such part or parts of these rules and regulations as in his judgment may not be necessary for the proper maintenance or operation of the building or consistent with good service, and may from time to time make such further reasonable rules and regulations as in his judgment may be needed for the safety, care and cleanliness of the Premises and the building and for the preservation of order therein.

16. SOLICITORS, Lessor will make an effort to keep solicitors out of the building, and Lessee will not oppose Lessor in his attempt to accomplish this end.

17. FLOOR PLAN, The floor plan and specifications for Lessee's occupancy will be attached hereto and marked Exhibit "A" which shall be approved by both Lessor and Lessee, both of whose approval shall not be unreasonably withheld or conditioned.

18. ASSIGNMENT, Lessee will not assign this lease, without Lessor's consent, or any interest hereunder, and this lease, or any interest hereunder, shall not be assigned by operation of law. Lessee will not sublet said Premises or any part thereof and will not permit the use of said Premises by others other than Lessee and the agents of Lessee without first obtaining the written consent of Lessor, whose consent shall not be unreasonably withheld or conditioned. In the event such written consent shall be given, no other or subsequent assignment or subletting shall be made without the previous written consent of Lessor, whose consent shall not be unreasonably withheld or conditioned. Lessor's failure to respond within fifteen (15) days to Lessee's request to assign or

sublease the Premises shall constitute Lessor's acceptance thereof. In the event Lessee desires to assign or sublet said Premises or any part thereof, Lessor shall have the first right to re-capture that portion of the Premises which Lessee intends to sublease. Notwithstanding the above, Lessee may assign this lease or sublease the Premises to affiliates or subsidiaries or related entities that result from a merger without Lessor's consent.

19. OPERATING SERVICES AND REAL ESTATE TAXES, The annual base rental rate per rentable square foot in Paragraph 3 includes Lessee's proportionate share of Operating Services and Real Estate Taxes for the first twelve months of the lease term, "Base Year Costs". Only actual increases from these Base Year Costs, if any, will be passed on to Lessee on a proportionate basis.

DEFINITIONS

Base Year

For computing the Base Year Costs, the base year shall be the calendar year stated herein or if a specific calendar year is not stated herein then the base year shall be the calendar year in which the lease term commences. The base year shall be the calendar year 1998.

Comparison Year

The Comparison Year(s) shall be the calendar year(s) subsequent to the base year.

Operating Services

"Operating Services" include, but are not limited to, the charges incurred by Lessor for: building operation salaries, benefits, management fee of five percent (5%) of gross income for the building, insurance, electricity, janitorial, supplies, telephone, HVAC, repair and maintenance, window washing, water and sewer, security, landscaping, disposal, elevator, and other charges which are reasonable, customary and generally accepted as "Operating Services" in the market place. Operating Services shall also include the amortization cost of capital investment items and of the installation thereof, which are primarily for the purpose of safety, saving energy or reducing operating costs, and only to the extent of such actual savings in Operating Services, or which may be required by governmental authority not in effect as of the commencement date hereof, (all such costs shall be amortized over the reasonable life of the capital investment item, with the reasonable life and amortization schedule being determined in accordance with generally accepted accounting principles). Notwithstanding anything to the contrary contained herein, Operating Services shall not include any of the following:

(i) real estate taxes

(ii) legal fees, auditing fees, brokerage commissions, advertising costs, or other related expenses incurred by Lessor in an effort to generate rental income;

(iii) repairs, alterations, additions, improvements, or replacements made to rectify or correct any defect in the original design, materials or workmanship of the building or common areas (but not including repairs, alterations, additions, improvements or replacements made as a result of ordinary wear and tear);

(iv) damage and repairs attributable to fire or other casualty;

(v) damage and repairs necessitated by the negligence or willful misconduct of Lessor, Lessor's employees, contractors or agents;

(vi) executive salaries to the extent that such services are not in connection with the management, operation, repair or maintenance of the building;

(vii) Lessor's general overhead expenses not related to the building;

(viii) legal fees, accountant's fees and other expenses incurred in connection with disputes with tenants or other occupants of the building or associated with the enforcement of the terms of any leases with tenants or the defense of Lessor's title to or interest in the building or any part thereof unless the outcome is to the financial benefit of all tenants;

(ix) costs (including permit, license and inspection fees) incurred in renovating or otherwise improving, decorating, painting or altering (1) vacant space (excluding common areas) in the building or (2) space for tenants or other occupants in the building and costs incurred in supplying any item or service to less than all of the tenants in the building;

(x) costs incurred due to a violation by Lessor or any other tenant of the building of the terms and conditions of a lease;

(xi) cost of any specific service provided to Lessee or other occupants of the building for which Lessor is reimbursed (but not including Operating Services and Real Estate Tax increases above Base Year Costs to the extent reimbursed Lessor) or any other expense for which Lessor is or will be reimbursed by another source (i.e., expenses covered by insurance or warranties);

(xii) costs and expenses which would be capitalized under generally accepted accounting principles, with the exception of the capital investment items specified hereinabove;

(xiii) building management fees in excess of the management fees specified hereinabove;

(xiv) cost incurred with owning and/or operating the parking lot(s) serving the building by independent parking operator(s).

(xv) fees paid to Lessor or any affiliate of Lessor for goods or services in excess of the fees that would typically be charged by unrelated, independent persons or entities for similar goods and services;

(xvi) rent called for under any ground lease or master lease;

(xvii) principal and/or interest payments called for under any debt secured by a mortgage or deed of trust on the building; and

Operating Services shall be adjusted for the Base Year and all Comparison Year(s) to reflect the greater of actual occupancy or 95% occupancy.

Real Estate Taxes
- -----------------

Real Estate Taxes shall be the taxes paid by Lessor in the base year and each respective Comparison Year. Real Estate Taxes shall be a separate category and shall be treated as such.

Proportionate Basis
- -------------------

Lessee's share of Base Year and Comparison Year(s) Costs shall be a fraction, the numerator of which shall be the number of rentable square feet contained in the leased Premises (see Paragraph 1) and the denominator of which shall be the number of rentable square feet in the building in which the leased Premises are located (220,845/RSF).

Computation of Adjustments to Base Year Costs
- ---

Any adjustment to Base Year Costs will commence to occur in Month 13 of the lease term with subsequent adjustments commencing every twelve months of the lease term or in Months 25, 37, 49, etc. as appropriate under the lease term. Lessee shall be responsible for any increase between Lessee's proportionate share of Base Year Costs and Lessee's proportionate share of each respective Comparison Year(s) Costs. The increase shall be the increase to each expense individually. These costs shall be initially calculated based on estimated

(projected) costs with reconciliation to actual costs when annual audited numbers are completed. For the purpose of calculating projected increases to Base Year Costs, Lessor shall review historical data to predict if any estimated increases would be anticipated in a Comparison Year(s). If they are, then commencing in Month 13 and/or

every twelve month period thereafter, Lessor will assess a monthly charge to be paid together with monthly base rent. Once actual cost data for Comparison Year(s) Real Estate Taxes and Operating Services for the entire building is formulated in accordance with generally accepted accounting principles and adjusted to the greater of actual occupancy or 95% occupancy, then Lessee's estimated pass-through costs shall be corrected with Lessee or Lessor, as appropriate, reimbursing the other for the difference between the estimated and actual costs, at that time in a lump sum payment.

Upon termination of this lease, the amount of any corrected amount between estimated and actual costs with respect to the final comparison year shall survive the termination of the lease and shall be paid to Lessee or Lessor as appropriate within thirty (30) days after final reconciliation.

Computation of or adjustment to Operating Services and/or Real Estate Taxes pursuant to this paragraph or to rent pursuant to Paragraph 3 shall be computed based on a three hundred sixty-five (365) day year.

For an example, see Exhibit B attached hereto.

20. ADDITIONAL TAXES OR ASSESSMENTS, Should there presently be in effect or should there be enacted during the term of this lease, any law, statute or ordinance levying any assessment or any tax upon rents or the income from real estate or rental property (other than federal or state income taxes), Lessee shall reimburse Lessor for Lessee's proportionate share of said expenses at the same time as rental payments.

21. LATE PAYMENTS, On any payment, required to be made pursuant to this Lease, which is not made on the date the same is due, Lessor shall have the right to assess interest at a rate equal to three percent (3%) above the prime rate of interest charged from time to time by Seafirst National Bank, or its successor.

In addition to any interest charged herein, a late charge of five percent (5%) of the payment amount shall be incurred for payments received more than five (5) days late.

22. RISK, All personal property of any kind or description whatsoever in the demised Premises shall be at Lessee's sole risk. Lessor shall not be liable for any damage done to or loss of such personal property or damage or loss suffered by the business or occupation of the Lessee arising from any acts or neglect of co-tenants or other occupants of the building, or of Lessor or the employees of Lessor, or of any other persons, or from bursting, overflowing or leaking of water, sewer or steam pipes, or from the heating or plumbing or sprinklering fixtures, or from electric wires, or from gas, or odors, or caused in any other manner whatsoever except in the case of negligence or willful misconduct on the part of Lessor or its agents. Lessee shall keep in force throughout the term of this lease such casualty, general liability and business interruption insurance as a prudent tenant occupying and using the Premises would keep in force.

23. INDEMNIFICATION, Either party will defend, indemnify and hold harmless the other party from any claim, liability or suit including attorney's fees on behalf of any person, persons, corporations and/or firm for any injuries or damages occurring in or about the said Premises or on or about the sidewalk, stairs, or thoroughfares adjacent thereto where said damages or injury was caused by the negligence or intentional act of the other party, its agents, employees, servants, customers or clients.

24. WAIVER OF SUBROGATION, Lessee and Lessor do hereby release and relieve the other, and waive their entire claim of recovery for loss, damage,

injury, and all liability of every kind and nature which may arise out of, or be incident to, fire and extended coverage perils, in, on, or about the Premises herein described, whether due to negligence of either of said parties, their agents, or employees, or otherwise. Lessor will provide a non-disturbance agreement from any beneficiary of an existing or future deed of trust.

25. SUBORDINATION, This lease and all interest and estate of Lessee hereunder is subject to and is hereby subordinated to all present and future mortgages and deeds of trust affecting the Premises or the property of which said Premises are a part. Lessee agrees to execute at no expense to the Lessor, any instrument which may reasonably be deemed necessary or desirable by the Lessor to further effect the subordination of this lease to any such mortgage or deed of trust. In the event of a sale or assignment of Lessor's interest in the Premises, or in the event of any proceedings brought for the foreclosure of, or in the event of exercise of the power of sale under any mortgage or deed of trust made by Lessor covering the Premises, Lessee shall attorn to the purchaser or assignee and recognize such purchaser or assignee as Lessor and the purchaser or assignee, provided that Lessee is not in default, shall recognize the Lessee as the tenant under and in accordance with the terms of this lease. Lessee agrees to execute, at no expense to Lessor, any estoppel certificate reasonably deemed necessary or desirable by Lessor to further effect the provisions of this paragraph.

26. CASUALTY, In the event the leased Premises or the said building is destroyed or injured by fire, earthquake or other casualty to the extent that they are untenantable in whole or in part, then Lessor may, at Lessor's option, proceed with reasonable diligence to rebuild and restore the said Premises or such part thereof as may be injured as aforesaid, provided that within sixty (60) days after such destruction or injury Lessor will notify Lessee of Lessor's intention to do so, and during the period of such rebuilding and restoration the rent shall be abated on the portion of the Premises that is unfit for occupancy. If rebuilding and restoration are not substantially completed within 120 days of the casualty so that Lessee cannot reasonably conduct business therein, then Lessee shall have the option to terminate this lease. Provided however, if Lessor can provide comparable alternative space within the building, the Lessee shall not have the right to terminate. Lessee shall pay for the temporary space at the market rate or Lessee's existing rate, whichever is lower and Lessor agrees to pay the costs of relocation.

27. INSOLVENCY, If Lessee becomes insolvent, or makes an assignment for the benefit of creditors, or a receiver is appointed for the business or property of Lessee, or a petition is filed in a court of competent jurisdiction to have Lessee adjudged bankrupt, then Lessor may at Lessor's option terminate this lease. Said termination shall reserve unto Lessor all of the rights and remedies available under Paragraph 28 ("Default") hereof, and Lessor may accept rents from such assignee or receiver without waiving or forfeiting said right of termination. As an alternative to exercising his right to terminate this lease, Lessor may require Lessee to provide adequate assurances, including the posting of a cash bond, of Lessee's ability to perform its obligations under this lease.

28. DEFAULT, If this lease is terminated in accordance with any of the terms herein (with the exception of Paragraph 27), or if Lessee vacates or abandons the Premises or if Lessee shall fail at any time to keep or perform any of its covenants or conditions of this lease, i.e. specifically the covenant for the payment of monthly rent (and such failure is not cured within ten (10) days after written notice thereof by Lessor to Lessee in the case of monetary default and thirty (30) days for all other defaults under the lease), then, and in any of such events, Lessor may with or without notice or demand, at Lessor's option, and without being deemed guilty of trespass and/or without prejudicing any remedy or remedies which might otherwise be used by Lessor for arrearages or preceding breach of covenant or condition of this lease, enter into and repossess said Premises and expel the Lessee and all those claiming under Lessee. In such event Lessor may eject and remove from said Premises all goods and effects (forcibly if necessary). This lease if not otherwise terminated may immediately be declared by Lessor as terminated, provided however, in the case of non-monetary defaults, if the failure is of such a nature that it cannot be completely remedied within such thirty (30) day period, the failure shall not be a default if Lessee begins correction of the failure within the thirty (30) day

period and thereafter proceeds with reasonable diligence to correct the failure as soon as practicable. The termination of this lease pursuant to this Article shall not relieve Lessee of its obligations to make the payments required herein. In the event this lease is terminated pursuant to this Article, or if Lessor enters the Premises without terminating this lease and Lessor relets all or a portion of the Premises, Lessee shall be liable to Lessor for all the reasonable costs of reletting, including necessary renovation and alteration of the leased Premises. Lessee shall remain liable for all unpaid rental

which has been earned plus late payment charges pursuant to Paragraph 21 and for the remainder of the term of this lease for any deficiency between the net amounts received following reletting and the gross amounts due from Lessee, or if Lessor elects, Lessee shall be immediately liable for all rent and additional rent (Paragraph 19) that would be owing to the end of the term, less any rental loss Lessee proves could be reasonably avoided, which amount shall be discounted by the discount rate of the Federal Reserve Bank, situated nearest to the Premises, plus one percent (1%).

29. BINDING EFFECT, The parties hereto further agree with each other that each of the provisions of this lease shall extend to and shall, as the case may require, bind and inure to the benefit, not only of Lessor and Lessee, but also of their respective heirs, legal representatives, successors and assigns, subject, however, to the provisions of Paragraph 18 of this lease.

It is also understood and agreed that the terms "Lessor" and "Lessee" and verbs and pronouns in the singular number are uniformly used throughout this lease regardless of gender, number or fact of incorporation of the parties hereto. The typewritten riders or supplemental provisions, if any, attached or added hereto are made a part of this lease by reference. It is further mutually agreed that no waiver by Lessor of a breach by Lessee of any covenant or condition of this lease shall be construed to be a waiver of any subsequent breach of the same or any other covenant or condition.

30. HOLDING OVER, If Lessee holds possession of the Premises after term of this lease, Lessee shall be deemed to be a month-to-month tenant upon the same terms and conditions as contained herein, except rent which shall be revised to reflect the then current market rate. During month-to-month tenancy, Lessee acknowledges Lessor will be attempting to relet the Premises. Lessee agrees to cooperate with Lessor and Lessee further acknowledges Lessor's statutory right to terminate the lease with proper notice.

31. ATTORNEY'S FEES, If any legal action is commenced to enforce any provision of this lease, the prevailing party shall be entitled to an award of reasonable attorney's fees and disbursements. The phrase "prevailing Party" shall include a party who receives substantially the relief desired, whether by dismissal, summary judgment, judgment or otherwise.

32. LESSOR REPRESENTATIONS, The Lessor has made no representations or promises other than contained herein or in some future writings signed by Lessor, except the physical condition of the Premises is consistent with general office space in the Puget Sound commercial market and Lessor operates the Premises in compliance with the U.S. American Disabilities Act.

33. QUIET ENJOYMENT, So long as Lessee pays the rent and performs the covenants contained in this lease, Lessee shall hold and enjoy the Premises peaceably and quietly, subject to the provisions of this lease.

34. RECORDATION, Lessee shall not record this lease without the prior written consent of Lessor. However, at the request of Lessor, both parties shall execute a memorandum or "short form" of this lease for the purpose of recordation in a form customarily used for such purpose. Said memorandum or short form of this lease shall describe the parties, the Premises and the lease term, and shall incorporate this lease by reference.

35. MUTUAL PREPARATION OF LEASE, It is acknowledged and agreed that

this lease was prepared mutually by both parties. In the event of ambiguity, it is agreed by both parties that it shall not be construed against either party as the drafter of this lease.

36. GOVERNING LAW, This lease shall be governed by, construed and enforced in accordance with the laws of the State of Washington.

37. DESIGN SERVICES, Lessor shall, at Lessor's expense, provide for all space planning, design, documentation and contract administration in connection with all work to be done in the Premises in order to prepare the Premises for Lessee's

effective occupancy. Lessor will be responsible for the architectural space study fees of CNA Architects, but not for the cost of construction documents unless provided by Martin Selig Real Estate in-house architects. Lessor will furthermore contract with and pay for the design and engineering services pertaining to structural, mechanical, electrical, and fire protection. Lessor shall, at Lessor's expense, furnish to Lessee, for Lessee's approval, all drawings necessary for the preparation of the Premises for Lessee's use and occupancy.

38. TENANT IMPROVEMENT ALLOWANCE, Lessee's Premises will be completed in accordance with mutually agreed upon working drawings by a mutually agreed upon contractor. Lessee will be provided a tenant improvement allowance of $5.00 per rentable square foot. This tenant improvement allowance shall not include furniture, furnishings, or equipment, but may include physical moving expenses and improvements to the space including HVAC modifications. The tenant improvement allowance will be given to Lessee as a rent credit to be offset against rents beginning with the commencement of this lease.

39. PARKING, Lessee will be provided parking for four (4) cars in the building garage and four (4) cars outside of the building. All parking shall be at market rate, currently $90.00 inside and $80.00 outside, and paid for by Lessee.

40. OPTION TO RENEW, Provided that Lessee is not in default under any of the terms and conditions of this lease at the time of exercising this option, Lessee shall have the option to renew this lease for an additional period of three (3) years on the same terms and conditions, except the rent. Base rent for the renewal term shall be at the then market rate for comparable office space in the lower Queen Anne area of Seattle. Lessee agrees to give Lessor notice of its intent to renew 180 days prior to the expiration of the initial lease term. In the event Lessee disagrees with the market rate established by Lessor, market rate shall be established as follows:

Within sixty (60) days after notice of exercise of the option, each party shall nominate an appraiser of its choice. The two appraisers shall then select a third appraiser and they shall determine by majority vote the fair market rental value for the Premises as of the commencement of the extended term.

All appraisers selected shall be M.A.I. appraisers with commercial property experience in King County.

The base rent shall remain unchanged until such decision is rendered by the appraiser, but the rent shall be adjusted retroactive to the beginning of the option period.

41. REAL ESTATE COMMISSION, Lessor agrees to pay a real estate commission equivalent to five percent (5%) of the gross rental amount of the initial lease term to Colliers Macaulay Nicolls International for their services in this lease transaction. The fee shall be payable one-half upon execution of lease and one-half upon occupancy of space by Lessee. In the event Lessor declines to pay such fees in the amount and in the time frame described, Lessee may make payment of commission and accrued interest directly to Colliers and deduct it from the/any first rents becoming due. In such case, Lessor shall not hold Lessee in default under the terms of this lease.

IN WITNESS WHEREOF, the parties hereof have executed this lease the day and year first above written.

SELIG REAL ESTATE HOLDINGS SIX, a Washington general partnership	CELL THERAPEUTICS INC., a Washington Corporation
By: Martin Selig	By:
Its: General Partner	Its:
"Lessor"	"Lessee"

GUARANTEE

For value received and as an inducement to Lessor making the within lease to Lessee, the undersigned Guarantor hereby guarantees the payment of rent and performance by Lessee, Lessee's successors and assigns of all covenants and agreements of the above Lease.

- ---------- ----------

CELL0224.98

Attachment

EXHIBIT B

EXAMPLE

The intent is to include Lessee's proportionate share of all Base Year Costs in Lessee's Annual Base Rental Rate. It is further the intent to limit adjustments to Lessee's Base Year Costs to actual increases in cost. The Operating Services are adjusted to the greater of actual occupancy or 95% occupancy for the base year to fairly establish the Base Year Costs at an equitable standard for comparison purposes. Comparison Years are similarly adjusted for purposes of fairness and equality. To prevent any confusion regarding computation of Base Year Costs, Comparison Year Costs and the adjustment of those costs to 95% occupancy, if necessary, we have set forth the following example. It is important to note that if adjustment to 95% occupancy is necessary, not all Operating Services are adjusted.

Expenses requiring adjustment are those which are 100% dependent upon the change in footage and adjust with the change in occupied footage. This category includes electricity, water/sewer, superintendent, disposal, management, janitorial supplies, window washing, repair and maintenance, HVAC maintenance, and janitorial labor.

Other expenses do not require adjustment nor are they dependent upon occupied footage change. These categories are the same whether the building is empty or full. They are, insurance, security, elevator, landscaping and telephone.

Real Estate Taxes are dependent upon independent assessment. Real Estate Taxes are not adjusted to 95%, but are established for each respective year based on the actual tax paid whether for the respective Base Year or each subsequent Comparison Year(s).

Please note the expenses noted below which are and are not adjusted and the adjustment to each expense to achieve 95% occupancy, if necessary. The method of adjusting expenses depicted in the example will be followed when adjusting actual Operating Service Expenses for both the Base Year and Comparison Year(s).

HYPOTHETICAL FACTS

Building Occupancy:	80%
Actual Base Year Costs:	$ 375,000
Grossed Base Year Costs to 95%:	$ 440,000
Actual Comparison Year Costs: (see below)	$ 405,440
Grossed Comparison Year Costs to 95%: (see below)	$ 463,080
Tenant Premises:	10,000 RSF
Building RSF:	125,000 RSF
Tenant Proportionate Basis:	10,000 divided by 125,000 = 8%

EXAMPLE

Description	Actual Expenses	Grossed Expenses	
Percent Occupied	80.00%	95.00%	Methodology
Real Estate Taxes	$ 54,854	$ 54,854	Actual Cost
Operating Expenses			
Insurance	$ 26,595	$ 26,595	Actual Cost
Electricity	$ 69,358	$ 82,363	Adjusts with occupancy
Water & Sewer	$ 4,945	$ 5,872	Adjusts with occupancy
Security	$ 5,000	$ 5,000	Actual Cost
Elevator	$ 7,526	$ 7,526	Actual Cost
Superintendent	$ 82,869	$ 98,407	Adjusts with occupancy
Landscaping	$ 2,912	$ 2,912	Actual Cost
Disposal	$ 15,502	$ 18,409	Adjusts with occupancy
Management	$ 41,680	$ 49,495	Adjusts with occupancy
Supplies	$ 4,339	$ 5,153	Adjusts with occupancy
Window Washing	$ 1,527	$ 1,813	Adjusts with occupancy
Repairs & Maintenance	$ 24,333	$ 28,895	Adjusts with occupancy
Telephone	$ 1,144	$ 1,144	Actual Cost
HVAC Maintenance	$ 6,208	$ 7,372	Adjusts with occupancy
Janitorial	$ 56,648	$ 67,270	Adjusts with occupancy
TOTALS:	$405,440	$463,080	

EXHIBIT 10.10

PROMISSORY NOTE

$_____ Dated: _____

FOR VALUE RECEIVED, the undersigned, _____ (the "Borrower"), HEREBY UNCONDITIONALLY PROMISES TO PAY to the order of CELL THERAPEUTICS, INC. (the "Lender"), the principal sum of _____ DOLLARS ($_____), plus interest as set forth below, in one installment, on December 16, 2002.

The Borrower further promises to pay interest on the outstanding principal amount of this Promissory Note from the date hereof until maturity at a rate per annum equal at all times to ___%. In the event that any amount of principal or interest, or any other amount payable hereunder, is not paid in full when due (whether at stated maturity, by acceleration or otherwise), the Borrower agrees to pay interest on such unpaid principal or other amount, from the date such amount becomes due until the date such amount is paid in full, payable on demand, at a rate per annum equal at all times to three percent (3%) in excess of the "prime rate" of interest as is then charged by The Bank of America National Trust & Savings Association. All computations of interest shall be made on the basis of a year of 365 or 366 days, as the case may be, for the actual number of days (including the first day but excluding the last day) occurring in the period for which such interest is payable.

All payments hereunder shall be made in lawful money of the United States of America, to the Lender, at 201 Elliott Avenue West, Suite 400, Seattle, WA 98119, or at such other place or to such account as the Lender from time to time shall designate in a written notice to the Borrower.

Whenever any payment of principal or interest hereunder shall be stated to be due, or any other date specified hereunder would otherwise occur, on a day other than a Business Day (as defined below), then such payment shall be made or such other date shall occur, on the next succeeding Business Day, and such extension of time shall in such case be included in the computation of payment of interest hereunder. As used herein, "Business Day" means a day (i) other than Saturday or Sunday, and (ii) on which commercial banks are open for business in Seattle, Washington.

Anything herein to the contrary notwithstanding, if during any period for which interest is computed hereunder, the amount of interest computed on the basis provided for in this Promissory Note, together with all fees, charges and other payments which are treated as interest under applicable law, as provided for herein or in any other document executed in connection herewith, would exceed the amount of such interest computed on the basis of the Highest Lawful Rate, the Borrower shall not be obligated to pay, and the Lender shall not be entitled to charge, collect, receive, reserve or take, interest in excess of the Highest Lawful Rate, and during any such period the interest payable hereunder shall be computed on the basis of the Highest Lawful Rate. As used herein, "Highest Lawful Rate" means the maximum non-usurious rate of interest,

as in effect from time to time, which may be charged, contracted for, reserved, received or collected by the Lender in connection with this Promissory Note under applicable law.

The Borrower may prepay the outstanding amount hereof in whole or in part at any time, without premium or penalty. Together with any such prepayment the Borrower shall pay accrued interest on the amount prepaid. Any partial prepayment shall be applied to the principal hereof.

So long as any amount payable by the Borrower hereunder shall remain unpaid, the Borrower will furnish to the Lender from time to time such information respecting the Borrower's financial condition as the Lender may from time to time reasonably request.

The Borrower represents and warrants to the Lender that this Promissory Note does not contravene any contractual or judicial restriction binding on or affecting the Borrower and that this Promissory Note is the legal,

valid and binding obligation of the Borrower enforceable against him in accordance with its terms.

The occurrence of any of the following shall constitute an "Event of Default" under this Promissory Note:

(1) the failure to make any payment of principal, interest or any other amount payable hereunder when due under this Promissory Note or the breach of any other condition or obligation under this Promissory Note, and the continuation of such failure or breach for five (5) days; or

(2) the filing of a petition by or against the Borrower under any provision of the Bankruptcy Reform Act, Title 11 of the United States Code, as amended or recodified from time to time, or under any similar law relating to bankruptcy, insolvency or other relief for debtors; or appointment of a receiver, trustee, custodian or liquidator of or for all or any part of the assets or property of the Borrower; or the insolvency of the Borrower; or the making of a general assignment for the benefit of creditors by the Borrower.

Upon the occurrence of any Event of Default, the Lender, at its option, may by notice to the Borrower, declare the unpaid principal amount of this Promissory Note, all interest accrued and unpaid hereon and all other amounts payable hereunder to be immediately due and payable, whereupon the unpaid principal amount of this Promissory Note, all such interest and all such other amounts shall become immediately due and payable, without presentment, demand, protest or further notice of any kind.

The Borrower agrees to pay on demand all the losses, costs, and expenses (including, without limitation, attorneys' fees and disbursements) which the Lender incurs in connection with enforcement or attempted enforcement of this Promissory Note, or the protection or preservation of the Lender's rights under this Promissory Note, whether by judicial proceedings or otherwise. Such costs and expenses include, without limitation, those incurred in connection with any workout or refinancing, or any bankruptcy, insolvency, liquidation or similar proceedings.

The Borrower hereby waives diligence, demand, presentment, protest or further notice of any kind. The Borrower agrees to make all payments under this Promissory Note without setoff or deduction and regardless of any counterclaim or defense.

No single or partial exercise of any power under this Promissory Note shall preclude any other or further exercise of such power or exercise of any other power. No delay or omission on the part of the Lender in exercising any right under this Promissory Note shall operate as a waiver of such right or any other right hereunder.

This Promissory Note shall be binding on the Borrower and its successors and assigns, and shall be binding upon and inure to the benefit of the Lender, any future holder of this Promissory Note and their respective successors and assigns. The Borrower may not assign or transfer this Promissory Note or any of its obligations hereunder without the Lender's prior written consent.

THIS PROMISSORY NOTE SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH LAW OF THE STATE OF WASHINGTON (WITHOUT REFERENCE TO THE CONFLICT OF LAW PRINCIPLES, OTHER THAN THOSE DIRECTING APPLICATION OF WASHINGTON LAW).

_____

Name:

Address:

_____

_____

_____

EXHIBIT 10.20

Portions of this Exhibit have been omitted pursuant to a request for confidential treatment. The omitted portions are marked ***** and have been filed separately with the Commission.

AMENDMENT NO. 1 TO THE
COLLABORATION AND LICENSE AGREEMENT
dated as of November 8, 1996
by and between
CELL THERAPEUTICS, INC.
and
ORTHO BIOTECH INC.
and
THE R.W. JOHNSON PHARMACEUTICAL CORPORATION

THIS AMENDMENT NO. 1 to the COLLABORATION AND LICENSE AGREEMENT (the "Agreement"), dated as of November 6, 1996, by and between CELL THERAPEUTICS, INC., a Washington corporation having its principal place of business at 201 Elliott Avenue West, Suite 400, Seattle, Washington 98119 (hereinafter referred to as "CTI") and ORTHO BIOTECH INC., a New Jersey corporation having its principal place of business at 700 U.S. Route 202 South, Raritan, New Jersey 08869 and THE R. W. JOHNSON PHARMACEUTICAL RESEARCH INSTITUTE, a division of ORTHO PHARMACEUTICAL CORPORATION, a Delaware corporation having its principal office at U.S. Route 202, Raritan, New Jersey 08869 (hereinafter collectively referred to as "ORTHO"), is made this 16th day of November, 1998 by and among CTI and ORTHO (each, a "Party" and together, the "Parties").

W I T N E S S E T H:
- - - - - - - - - -

WHEREAS, CTI and ORTHO desire to amend the Agreement as provided herein:

NOW THEREFORE, in consideration of the foregoing and the representations, warranties and covenants set forth herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound hereby, the Parties hereto hereby agree as follows:

SECTION 1.01. Definitions. The following terms, when capitalized, shall have the following meanings as used in this Amendment:

"ALI Recommendation" means the interim analysis recommendation by The National Heart, Lung and Blood Institute through the Steering Committee of its ARDS Network with respect to the Phase II/III ALI Trial (Protocol 1037).

"Certificate of Analysis" means the document that summarizes all final release test data as compared to the release specification for each lot of product, including date of manufacture, expiration or retest date, and is approved by the appropriate authority.

"Certificate of Conformance" means the document that provides certification that all documentation for a particular lot, collected during production and testing, has been reviewed and all deviations, non-conformances or other quality issues have been satisfactorily resolved to release the lot, and shall include proof of sterility, endotoxin and environmental testing.

"ORTHO Resumption Date" shall mean that date which is sixty (60) days after the later to occur of: (i) the delivery by CTI to ORTHO of the results of the Phase III AML Trial and (ii) the delivery by CTI to ORTHO of the ALI Recommendation.

"ORTHO Suspension Date" means July 1, 1998.

"Phase II/III ALI Trial" means CTI's Phase II/III clinical trial for Lisofylline currently designated under protocol 1036 and includes all modifications thereto (including a change in protocol number).

"Phase III AML Trial" means CTI's Phase III clinical trial for Lisofylline currently designated under protocol 1031 and includes all modifications thereto (including a change in protocol number).

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

"Standard Manufacturing Cost" means the standard manufacturing cost using generally accepted accounting principles for one (1) 10 milliliter ampoule (10.6 milliliter fill), including formulation, filling and bulk packaging activities, but excluding drug substance and shipping charges. On the date hereof, such costs are estimated by ORTHO to be as follows: *****.

SECTION 2.01. Development.

(a) Lead Development Party. Notwithstanding anything in the Agreement to the contrary, effective as of the ORTHO Suspension Date, CTI shall be the Lead Development Party in all geographic territories. As Lead Development Party, CTI shall have sole control over all aspects of Development under the Agreement. ORTHO shall have no obligations for Development after the ORTHO Suspension Date until the ORTHO Resumption Date.

(b) Development Expenses. Notwithstanding anything in the Agreement to the contrary, subject to Section 7.01 of this Amendment, effective as of the ORTHO Suspension Date, ORTHO shall have no obligations to fund Development Expenses under the Agreement until the ORTHO Resumption Date.

SECTION 3.01. Commercialization and Marketing. Notwithstanding anything in the Agreement to the contrary, effective as of the ORTHO Suspension Date, ORTHO shall have no obligations for Commercialization or Marketing under the Agreement until the ORTHO Resumption Date.

SECTION 4.01. Milestone Payments. Notwithstanding anything in the Agreement to the contrary, ORTHO shall not be obligated to make Milestone Payments under Section 3.02 of the Agreement unless and until the occurrence of the ORTHO Resumption Date. Upon the occurrence of the ORTHO Resumption Date, ORTHO shall make the Milestone Payment as set forth in Section 5.01(c)(iv) of this Amendment and Article III of the Agreement.

SECTION 5.01. Termination.

(a) Termination by ORTHO. Section 14.03 of the Agreement shall be amended by adding the following paragraph as subsection (c):

"(c) ORTHO shall have the right to terminate this Agreement by written notice to CTI, within sixty (60) days following the later of to occur of (i) delivery to ORTHO of the ALI Recommendation, or (ii)

delivery to ORTHO of the results of CTI's Phase III AML Trial. Such termination shall be effective immediately upon receipt by CTI of such written notice."

(b) Effect of Termination by ORTHO.

(i) The title and first sentence of Section 14.04 shall be amended by adding the language indicated in italics as follows:

"SECTION 14.04. Effect of Termination by ORTHO Pursuant to Section 14.03 (a) or (b). If ORTHO terminates this Agreement pursuant to Section 14.03(a) or (b)".

(ii) The following provision shall be added to Article XIV as Section 14.08.

"SECTION 14.08. Effect of Termination by ORTHO pursuant to Section 14.03(c). If ORTHO terminates this Agreement pursuant to Section 14.03(c), its obligation to perform its obligations under this Agreement shall terminate immediately. In addition, as a result of such termination, Sections 14.04(a), (b), (c), (e) and (f) shall apply to the Parties."

(c) ORTHO Resumption Date. Notwithstanding anything in the Agreement to the contrary, upon the occurrence of the ORTHO Resumption Date the following provisions will apply:

(i) ORTHO shall resume all Development, Commercialization and Marketing obligations under the Agreement as if this Amendment had not been adopted.

(ii) ORTHO shall be solely responsible for all ORTHO internal ramp-up and similar costs associated with the resumption of ORTHO's obligations pursuant to Section 6.01(b)(i) above.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(iii) ORTHO shall reimburse CTI ***** of the Development Expenses incurred by CTI with respect to Development during the period between December 31, 1998, and the ORTHO Resumption Date.

(iv) ORTHO shall pay CTI all Milestone Payments for milestones achieved by CTI between the ORTHO Suspension Date and the ORTHO Resumption Date.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(v) ORTHO shall pay CTI a one-time milestone payment of *****.

SECTION 6.01. Manufacture.

(a) Manufacture of Collaboration Products. Notwithstanding anything in the Agreement to the contrary, if ORTHO terminates the Agreement pursuant to Section 14.03(c), the following provisions shall apply:

(i) CTI shall use commercially reasonable efforts to identify an alternative party to manufacture and supply Collaboration Products.

(ii) Upon receipt of bulk raw material from CTI with a Certificate of Analysis, ORTHO shall provide the following manufacturing services to CTI for twenty-four (24) months following such termination:

(A) test the bulk raw material;

(B) formulate the suspension-liquid without doing any further development work;

(C) fill ampoules under aseptic conditions and terminally sterilize the final product; and

(D) supply unlabelled ampoules to CTI along with a Certificate of Conformance.

provided, however, CTI shall have sole responsibility for the release of the finished product.

(b) Manufacturing Expenses. ORTHO shall provide the Manufacturing services set forth in Section 5.01(a) of this Amendment at Standard Manufacturing Cost.

SECTION 7.01. Payments.

(a) Payments by ORTHO.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(i) As full and complete settlement with respect to its development and other obligations under the Agreement from the period from the ORTHO Suspension Date to December 31, 1998, ORTHO shall pay to CTI an aggregate amount of ***** in connection with the execution of this Amendment. Such amount shall be paid to CTI in two equal installments as follows: (A) ***** shall be paid to CTI no later than October 30, 1998; and (B) ***** shall be paid to CTI no later than January 31, 1999, and shall not require the submission of any invoice or documentation by CTI.

(ii) Notwithstanding anything in the Agreement to the contrary, with the exception of the amounts described in the foregoing subsection (i), all amounts that ORTHO might owe to CTI under the Agreement or otherwise with respect to periods on or prior to Suspension Date are hereby cancelled in full.

(b) Payments by CTI. Notwithstanding anything in the Agreement to the contrary, all amounts that CTI might owe to ORTHO under the Agreement or otherwise with respect to periods on or prior to the date hereof are hereby cancelled in full.

SECTION 8.01. Miscellaneous.

(a) Communications. CTI shall direct any and all communications regarding the Agreement or this Amendment to:

Robert J. Wills, Ph.D
Vice President, Preclinical Development
R.W. Johnson Pharmaceutical Research Institute
920 U.S. Highway 202
Raritan New Jersey 08869-0602
Telephone: (908) 704-4990
Facsimile: (908) 704-9486

(b) Access to CTI Information. Prior to the ORTHO Resumption Date,

CTI shall provide ORTHO with full access, from the hours of 8:30 am to 5:00 pm, Pacific Time, on regular Business Days, to all records and documents relating to the Phase II/III ALI Trial and the Phase III AML Trial. Such records and documents shall include, but not be limited to: trial design and protocol information, patient records, clinical and safety data, statistical analysis and results, and, with respect to the Phase II/III ALI Trial, joint access with CTI to

the Steering Committee of the ARDS Network at The National Heart, Lung and Blood Institute.

SECTION 9.01. Representations and Warranties. Each of the Parties hereby represents and warrants to the other Party that this Amendment is a legal and valid obligation binding upon such Party and enforceable in accordance with its terms. The execution, delivery and performance of the Amendment by such Party does not conflict with any agreement, instrument or understanding, oral or written, to which it is a Party or by which it is bound, nor violate any law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

IN WITNESS WHEREOF, CTI and ORTHO have caused this Amendment to be executed as of the date first written above by their respective officers thereunto duly authorized.

CELL THERAPEUTICS, INC.

By: _____
Name: James A. Bianco, M.D.
Title: President and Chief Executive Officer

ORTHO BIOTECH INC.

By: _____
Name:
Title:

R. W. JOHNSON PHARMACEUTICAL RESEARCH INSTITUTE, a division of ORTHO PHARMACEUTICAL CORPORATION

By: ORTHO PHARMACEUTICAL _____
CORPORATION
_____

By: _____
Name:
Title:

EXHIBIT 10.27

Portions of this Exhibit have been omitted pursuant to a request for confidential treatment. The omitted portions are marked ***** and have been filed separately with the Commission.

LICENSE AGREEMENT

dated as of November 13, 1998

by and between

PG-TXL COMPANY, L.P.

and

CELL THERAPEUTICS, INC.

TABLE OF CONTENTS

LICENSE AGREEMENT

LICENSE AGREEMENT (the "Agreement"), dated as of November 13, 1998 (the "Effective Date"), by and between PG-TXL COMPANY, L.P., a Delaware limited partnership having its principal place of business at 3324 Pittsburgh Street, Houston, Texas, 77005 (hereinafter referred to as "PG-TXL") and CELL THERAPEUTICS, INC., a Washington corporation having its principal place of business at 201 Elliott Avenue West, Seattle, Washington, 98119 (hereinafter referred to as "CTI"). PG-TXL and CTI are sometimes referred to herein individually as a "Party" and collectively as the "Parties."

W I T N E S S E T H:

WHEREAS, CTI focuses on the discovery, development, and commercialization of drugs that are relevant to the treatment of cancer and inflammatory and immune diseases;

WHEREAS, PG-TXL has acquired certain technology related to conjugates of water soluble polymers and, secondarily, metal chelators and has the right to grant rights and licenses and/or sublicenses under the PG-TXL Patent Rights (hereinafter defined) and PG-TXL Know-How (hereinafter defined);

WHEREAS, CTI has, based on its evaluation, expressed to PG-TXL its interest in obtaining from PG-TXL certain rights and licenses to the PG-TXL Patent Rights and PG-TXL Know-How;

WHEREAS, PG-TXL is willing to grant such rights and licenses to CTI under the terms and conditions hereinafter set forth;

WHEREAS, the Parties intend to record, characterize and report their activities under this Agreement as separate activities of each of the Parties;

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants and agreements contained herein, the Parties hereto, intending to be legally bound, do hereby agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.01. Definitions. The following terms, when capitalized, shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined) as used in this Agreement:

"Affiliate" means any person, corporation, partnership, firm, joint venture or other entity which, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, PG-TXL or CTI, as the case may be. As used in this definition, "control" means the possession of the power to direct or cause the direction of the management and policies of an entity, whether through the ownership of the outstanding voting securities or by contract or otherwise.

"April 30 License" means the License Agreement, effective as of April 30, 1998 by and among the April 30 Licensors and PG-TXL.

"April 30 Licensors" means Chun Li, Ph.D., Sidney Wallace, M.D., David

J. Yang, Ph.D. and Dong Fang Yu, M.S.

"Audit Disagreement" shall have the meaning set forth in Section 11.01(b).

"Bankruptcy Event" shall have the meaning set forth in Section 12.02(d).

"Clinical Work" means any work related to human trials to assess the dosing, safety and/or efficacy of Licensed Products and/or to assess a dose and treatment plan employing such Licensed Products, including, but not limited to, Phase III and Phase IV Clinical Trials (in the event such Phase IV Clinical Trials are required by the FDA).

"Commercialization" and "Commercialize" shall refer to all activities undertaken relating to the manufacture, pre-marketing, marketing and sale of Licensed Products.

"Confidential Information" shall have the meaning set forth in Section 8.01.

"Control" or "Controlled" shall refer to possession of the ability to grant a license or sublicense of patent rights, know-how or other intangible rights as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

"Development" and "Develop" shall refer to all activities relating to obtaining Regulatory Approval of Licensed Products, and all activities relating to developing the ability to manufacture the same. This includes preclinical testing, toxicology, formulation, bulk

production, fill/finish, manufacturing process development, manufacturing, quality assurance and quality control technical support, clinical studies, regulatory affairs and outside regulatory counsel legal services.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

"Development Expenses" means the expenses incurred in connection with the Development of Licensed Products. Development Expenses shall include, but are not limited to *****.

"Drug Approval Application" means an application for Regulatory Approval required to be approved before commercial sale or use of a Licensed Product as a drug in a regulatory jurisdiction, including, for the purposes of Regulatory Approval in the United States, a New Drug Application and all supplements filed pursuant to the requirements of the FDA (including all documents, data and other information concerning Licensed Products which are necessary for, or included in, FDA approval to market the Licensed Products, as more fully defined in 21 C.F.R. (S)(S)314.1 et seq.).

"Effective Date" shall have the meaning set forth in the Recitals to this Agreement.

"Europe" means the countries which are members of the European Union as such membership may change from time to time.

"FDA" means the United States Food and Drug Administration, or any successor agency.

"First Commercial Sale" means the date CTI or its Affiliate or a sublicensee of CTI first sells commercially, pursuant to a Regulatory Approval, Licensed Products in any country of the Territory, provided that where such a first commercial sale has occurred in a country for which pricing or reimbursement approval is necessary for widespread sale, then such sales shall not be deemed a First Commercial Sale until such pricing or reimbursement approval has been obtained.

"Improvements" shall mean any additional composition which comprises an agent conjugated to water soluble polymers or metal chelators.

"IND" shall mean an investigational new drug application required to be filed with the FDA pursuant to 21 C.F.R. (S) 312, as such regulations may be amended from time to time, to test drug products in humans, or any foreign equivalent of the FDA.

"Information" means (i) techniques and data relating to the Licensed Products, including, but not limited to, inventions, practices, methods, knowledge, know-how, skill, trade secrets, experience, test data including pharmacological, toxicological, preclinical and clinical test data, regulatory submissions, adverse reactions, analytical and quality control data, marketing, pricing, distribution, cost, sales and manufacturing data or descriptions and (ii) compounds, compositions of matter, assays and biological materials relating to the Licensed Products.

"June 30 Letter Agreement" shall mean that Letter Agreement dated June 30, 1998, between PG-TXL and CTI.

"Licensed Products" means all products, devices, apparatuses, compositions of matter, kits or component parts, and/or any method, procedure, or process, (or other subject matter disclosed or claimed in the PG-TXL Patent Rights) the manufacture, promotion, sale, marketing, distribution or use of which for any purpose by Licensee are covered by a validly issued and unexpired patent claim under the PG-TXL Patent Rights, or which utilize the PG-TXL Know-How, and any Improvements utilized by CTI or its licensees or assigns.

"Losses" shall have the meaning set forth in Section 13.01(a).

"Major Market Country" means each of Germany, France, Italy and the United Kingdom.

"Manufacturing Party" means the Party who is from time to time responsible for the (i) manufacturing and supply of the Licensed Products for use during Development or (ii) commercial manufacture and supply of the Licensed Products.

"MD Anderson" shall mean the University of Texas/M.D. Anderson Cancer Center located in Houston, Texas.

"MD Anderson Release" means the release by MD Anderson of its rights and claims to the PG-TXL Patent Rights as set forth in the letter dated March 11, 1997, from Charles B. Mullins, M.D. to John Mendelsohn, M.D., and to be confirmed in a letter to be dated on or about November 16, 1998, from John Mendelsohn, M.D. to the April 30 Licensors.

"Necessary Third Party Intellectual Property" shall mean Third Party intellectual property which CTI, in its good faith judgment and with prior consultation with PG-TXL, determines to be necessary and required to make, use,

sell, offer for sale or import Licensed Products.

"Net Sales" means the amount invoiced by a Party, its Affiliates or its sublicensees from sales of the Licensed Products to Third Parties in the Territory, less reasonable and customary deductions applicable to the Licensed Products for

(i) transportation charges and charges such as insurance for goods in transit, relating thereto paid by the selling party; (ii) sales and excise taxes or customs duties paid by the selling party and any other governmental charges imposed upon the sales of Licensed Products and paid by the selling party; (iii) distributors' fees, rebates or allowances actually granted, allowed or incurred; (iv) quantity discounts, cash discounts or chargebacks actually granted, allowed or incurred in the ordinary course of business in connection with the sale of the Licensed Products; (v) allowances or credits to customers, not in excess of the selling price of the Licensed Products, on account of governmental requirements, rejection, outdating, recalls or return of the Licensed Products; (vi) any amount required to be paid for Necessary Third Party Intellectual Property, and (vii) amounts actually charged for bad debts in connection with sales of Licensed Products. Sales of the Licensed Products between a Party and its Affiliates or sublicensees solely for research or clinical testing purposes shall be excluded from the computation of Net Sales. Net Sales will be accounted for in accordance with U.S. accounting standards consistently applied. If Necessary Third Party Intellectual Property is purchased, for the purposes of subclause (vi) the purchase price thereof shall be amortized over the remaining life of the PG-TXL Patent Rights and the amount thereof charged quarterly in computing Net Sales over the amortization period. If Necessary Third Party Intellectual Property is licensed, the royalties payable with regard thereto for the relevant period shall be deducted in computing Net Sales.

"Patent" means (i) valid United States and foreign patents, re-examinations, reissues, renewals, extensions, term restorations, divisionals, continuations and continuations-in-part thereof, and foreign counterparts thereof, and (ii) pending applications for United States and foreign patents and foreign counterparts thereof.

"Patent Expenses" means the fees, expenses and disbursements and outside counsel fees, and payments to Third Party agents incurred in connection with the preparation, filing, prosecution and maintenance of the PG-TXL Patent Rights covering the Licensed Products, including costs of patent interference and opposition proceedings and actions at law and equity for patent infringement and any sums paid to Third Parties on account of judgments or settlements arising out of Third Party patent claims (other than such judgments or settlements resulting in the payment of royalties).

"PG-TXL Know-How" means Information which is within the Control of PG-TXL and relates to the research, development, manufacture, use, importation, sale or offer for sale of Licensed Products or potential Licensed Products, including the use of the PG-TXL Patent Rights for uses other than cancer therapies. Notwithstanding anything herein to the contrary, PG-TXL Know-How shall exclude the PG-TXL Patent Rights.

"PG-TXL Patent Rights" means collectively, all right, title and interest of PG-TXL in, to and under the April 30 License to the Invention and Licensed Intellectual Property, as defined therein, including:

(a) any Patent listed in Exhibit A hereto or added thereto by written agreement of the Parties during the term of this Agreement;

(b) any Patent application listed in Exhibit A hereto or added thereto by written agreement of the Parties during the term of this Agreement; and any continuations, continuations-in-part, Improvements, additions, modifications, divisions or substitutions, of any such application; and any Patent which shall issue based on such application, continuations,

continuations-in-part, Improvements, additions, modifications, divisions or substitutions;

(c) any Patent which is a reissue, reexamination or extension of any Patent or any Patent application described in (a) or (b) above;

(d) any foreign counterpart Patent application or Patent corresponding to any Patent or Patent Application identified in (a), (b), or (c), above which is filed or issued in any country; and

(e) any Patent or Patent application related to or based on any PG-TXL Know-How related to the Licensed Products or the manufacture thereof developed or acquired by PG-TXL prior to or during the term of this Agreement and which is necessary for the use, development, manufacture, market, sale or distribution of any marketed Licensed Products and any division, continuation or continuation-in-part of any such Patent or Patent application; and any Patent which shall issue based on such application, division, continuation or continuation-in-part; and any Patent which is a reissue, reexamination or extension of any such Patent.

As used herein, "Patent" also includes a Supplementary Certificate of Protection of a member state of the European Community and any other similar protective rights in any other country.

"Phase I Clinical Trials" means those trials on sufficient numbers of normal volunteers and patients that are designed to establish that a drug is safe for its intended use, and to support its continued testing in Phase II Clinical Trials.

"Phase II Clinical Trials" means those trials on sufficient numbers of patients that are designed to gain evidence that a drug is effective for its intended use in the target population within the meaning of 21 C.F.R. (S)312.21(b).

"Phase III Clinical Trials" has the meaning ascribed thereto in 21 C.F.R. (S) 312.21(c), as amended from time to time.

"Phase IV Clinical Trials" means product support clinical trials of Licensed Products commenced after receipt of Regulatory Approval in the United States for such Licensed Products.

"Preclinical Work" means any nonclinical in vivo or in vitro biological work to assess the safety or efficacy of Licensed Products.

"Regulatory Approval" means any approvals, product and/or establishment licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, necessary for the manufacture, use, storage, importation, export, transport or sale of Licensed Products in a regulatory jurisdiction.

"Royalty Percentages" shall have the meaning set forth in Section 6.01.

"Successful Completion" means, with respect to a Phase II or Phase III Clinical Trial, that such trial has achieved each of its primary endpoints at a level that is statistically significant.

"Territory" means all the countries, territories and subdivisions of the world.

"Third Party" means any entity other than PG-TXL or CTI and their respective Affiliates and sublicensees.

"Written Disclosure" shall have the meaning set forth in Section 8.06.

ARTICLE II

DEVELOPMENT

SECTION 2.01. Development. CTI will be the sole party responsible for Development of Licensed Products and shall use commercially reasonable efforts to develop, manufacture, promote, sell, market, distribute or use the Licensed Products. Such efforts shall be consistent with commercially reasonable practices in the biotechnology industry as well as the efforts used by CTI with respect to its own pharmaceutical products.

SECTION 2.02. Drug Approval Applications. CTI, or its designee, shall be responsible for preparing and filing Drug Approval Applications and seeking Regulatory Approvals for Licensed Products in the Territory, including preparing all reports necessary as part of a Drug Approval Application. All such Drug Approval Applications shall be filed in the name of CTI or its designee, and a copy of each such Drug Approval Application shall be provided to PG-TXL within 180 days of such filing. CTI shall be responsible for prosecuting such Drug Approval Applications. In the event that any regulatory agency threatens or initiates any action to remove Licensed Products from the market, CTI shall notify PG-TXL of such communication within ten (10) business days of receipt by CTI. As between Parties, CTI shall be the legal and beneficial owner of all Drug Approval Applications and related approvals in the Territory.

SECTION 2.03. Costs of Development. Unless otherwise agreed all Development Expenses incurred for Licensed Products shall be borne by CTI. PG-TXL shall not conduct any Development, nor incur Development Expenses, without CTI's prior written consent.

SECTION 2.04. Exclusivity.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(a) The rights granted by PG-TXL to CTI under Section 4.01 shall become non-exclusive at the option of PG-TXL, upon written notice to CTI, effective ninety (90) days after receipt by CTI of such notice, if: *****.

(b) Neither PG-TXL nor any of its Affiliates shall use, Develop, manufacture, have manufactured, market, sell, or distribute directly or indirectly any Licensed Product in the Territory, nor aid in any of the aforementioned activities, including through the licensing of any PG-TXL Patent Rights or PG-TXL Know-How. If PG-TXL or any of its Affiliates makes, uses, or sells a product competitive with a Licensed Product in a country, or aids in any such activities with any of their respective licensees or sublicensees, and after written notice of breach from CTI, PG-TXL or its Affiliates fails to cease such making, using, or selling, CTI shall not be obligated to pay royalties on the sale of Licensed Products in such country, and may seek damages for PG-TXL's breach hereof

SECTION 2.05. CTI Portfolio. PG-TXL is aware of the fact that CTI is, as of the Effective Date, engaged in the discovery, development and commercialization of products which potentially may be competitive with Licensed Products and will continue to be so engaged after the Effective Date. PG-TXL agrees that nothing in this Agreement is intended to prevent or prevents CTI, in its sole discretion, from continuing to engage in such drug discovery, development or commercialization efforts.

ARTICLE III

PAYMENTS

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 3.01. License Fee Payments. On July 2, 1998, in consideration of the rights granted by PG-TXL to CTI under Section 3.0 of the June 30 Letter Agreement, CTI paid to PG-TXL a nonrefundable initial license fee payment of *****. In consideration of the rights granted by PG-TXL to CTI under Section 4.01 of this Agreement, CTI shall make the following remaining license fee payments:

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

Payment	Due Date
*****	January 5, 1999
*****	April 1, 1999
*****	July 1, 1999

CTI shall have no obligation to make the license fee payments specified above; however the failure to make any payment shall, at the option of either Party upon written notice to the other Party, terminate this Agreement effective five (5) days after receipt of such notice by such Party. Upon any termination, the license granted pursuant to Section 4.01 shall terminate and CTI shall comply with Section 12.02(e).

SECTION 3.02. Milestone Payments. CTI shall make the following payments to PG-TXL within ten (10) business days after the first achievement of each of the corresponding milestones (each milestone and corresponding payment shall be a stand-alone event and shall in no way be dependent upon the achievement of any other milestone):

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

PG-TXL Milestone Event	PG-TXL Milestone Payment
Oncology/PG-TXL:	
Upon the earlier to occur of:	*****
1. 24 months from the execution of this Agreement; or	
2. Acceptance by the FDA for filing of the first IND for a Licensed Product in U.S.	
The filing with the relevant regulatory agency or authority of the first IND application (or its counterpart) in the first Major Market Country which accepts the filing	*****
The filing with the relevant regulatory agency or authority of the first IND application (or its counterpart) in Japan	*****
Successful Completion of a Phase II Clinical	*****

Trial in the U.S.	
Successful Completion of a Phase II Clinical Trial in a Major Market Country	*****

PG-TXL Milestone Event	PG-TXL Milestone Payment
Successful Completion of a Phase II Clinical Trial in Japan	*****
Successful Completion of a Phase III Clinical Trial in the U.S.	*****
Successful Completion of a Phase III Clinical Trial in a Major Market Country	*****
Successful Completion of a Phase III Clinical Trial in Japan	*****
Regulatory Approval for the first indication in the U.S.	*****
Regulatory Approval for the first indication in a Major Market Country	*****
Regulatory approval for the first indication in Japan	*****
Additional Products:	
Commencement of a Phase I Clinical Trial in the U.S. for the second compound protected by the PG-TXL Patent Rights	*****
Commencement of a Phase I Clinical Trial in the U.S. for the third compound protected by the PG-TXL Patent Rights	*****

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 3.03. Donation to MD Anderson. CTI shall make a donation for research in the amount of ***** to the Division of Diagnostic Imaging of MD Anderson upon receipt by CTI of the first regulatory approval by the FDA for the manufacture and sale of Licensed Products. Such donation shall be made within ten (10) days of receipt of such regulatory approval by CTI.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 3.04. Facilities and Administrative Expenses. For a minimum three (3) year period, CTI shall reimburse PG-TXL for the cost of reasonable office space and office support facilities in the Houston area for use by PG-TXL and CTI personnel in an amount not to exceed ***** per year.

ARTICLE IV

LICENSES

SECTION 4.01. Patent License to CTI.

(a) PG-TXL grants to CTI a worldwide exclusive (even as to PG-TXL) license, with all rights to sublicense, under the PG-TXL Patent Rights and the PG-TXL Know-How to use, develop, manufacture, have manufactured, market, sell, offer to sell, import, export and distribute Licensed Products in the Territory.

(b) A list of the PG-TXL Patent Rights identified as of the Effective Date is set forth on Exhibit A. Such list shall be modified from time to time to reflect any changes to PG-TXL Patent Rights and shall be expanded from time to time to include any Patents owned or Controlled by PG-TXL relevant to the Development or Commercialization of Licensed Products.

SECTION 4.02. Trademark Assignment to CTI.

(a) PG-TXL hereby transfers and assigns to CTI all of its right, title and interest in and to the trademark "PG-TXL" to be used by CTI in connection with the development, commercialization, sales and marketing of Licensed Products; provided that PG-TXL shall retain the right to use the trademark "PG-TXL" in connection with its limited partnership name. Upon sixty (60) days prior notice to PG-TXL by CTI, PG-TXL will change its partnership name to one not containing "PG-TXL."

(b) PG-TXL makes no warranty regarding its right, title or interest in or to the trademark "PG-TXL."

SECTION 4.03. Third Party Technology.

(a) Existing Licenses. The licenses granted under Section 4.01 include sublicenses of Third Party technology existing on the Effective Date and licensed to PG-TXL to the extent that such sublicenses can be so granted, subject to the terms and conditions of the license agreement pursuant to which the sublicense is granted. As of the Effective Date hereof, the April 30 License is the only such agreement in place. PG-TXL shall be solely responsible for any and all payments required to be made under the April 30 License.

(b) Necessary Third Party Intellectual Property. CTI shall have the right to obtain (whether by license or purchase from Third Parties) Necessary Third Party Intellectual Property. CTI shall give PG-TXL, to the extent practicable, at least thirty (30) days notice of its intention to obtain Necessary Third Party Intellectual Property, and the terms upon which CTI prepares to obtain such property. If PG-TXL does not agree that obtaining such property is required to make, use, sell, offer for sale or import Licensed

Products, PG-TXL shall, within ten (10) days after receipt of such notice, inform CTI in writing of the basis for its disagreement, setting forth in reasonable detail the reasons for its disagreement. Regardless of whether the parties are in agreement, CTI shall be free to obtain such property. If PG-TXL does not agree that such property is required for CTI to make, use, sell, offer for sale or import Licensed Products, the issue shall be referred to arbitration in accordance with Section 15.11 hereof. The question which the arbitrator(s) shall decide is whether the property is required for CTI to make, use, sell, offer for sale or import Licensed Products. If the arbitrator(s) decide in CTI's favor, then the purchase price or royalty, as the case may be, shall be deducted when computing Net Sales as set forth in the definition of Net Sales under Section 1.01 hereof; otherwise such costs shall not be deducted when computing Net Sales.

ARTICLE V

COMMERCIALIZATION

SECTION 5.01. CTI as Sole Marketing Party. CTI, or its designees, will be the sole marketing Party with respect to Licensed Products in the

Territory, and as a result, shall be responsible for carrying out Commercialization in the Territory.

SECTION 5.02. Commercialization Efforts. CTI agrees to use commercially reasonable efforts with respect to the Commercialization of Licensed Products throughout the Territory provided for hereunder. Such commercially reasonable efforts shall be consistent with the efforts used by CTI in preparing commercialization plans and budgets and commercializing its own pharmaceutical products.

SECTION 5.03. Tax Considerations. Either Party may take advantage of tax considerations which benefit it and not the other Party. In the event that a Party takes advantage of a tax consideration in connection with Licensed Products which benefits it and not the other Party, no compensation to the other Party shall be required, provided that no negative tax implication for the other Party may be an element of such tax benefit.

ARTICLE VI

ROYALTIES

SECTION 6.01. Royalties. In further consideration of the rights and licenses granted to CTI under Article IV of this Agreement, CTI shall pay to PG-TXL the following royalties based on the Net Sales of Licensed Products in the Territory (the "Royalty Percentages"):

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

Cumulative Net Sales	Royalty Percentage
Less than $50 million	*****
$50 million - $150 million	*****
Greater than $150 million	*****

If a Licensed Product is made and sold in any country in which CTI does not have valid patent coverage which would prevent the sale of a generic form of such Licensed Product, the Royalty Percentage set forth above with respect to Net Sales attributable to the sale of such Licensed Product in such country shall be reduced by ***** of the Royalty Percentage that would otherwise be payable with respect to Net Sales attributable to the sale of such Licensed Product in such country, until CTI is granted such valid and enforceable patent coverage of such Licensed Product in such country.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(a) Royalty Term. All royalties to a Party shall be paid, on a country-by-country basis, from the date of the First Commercial Sale of each Licensed Product in a particular country until the later of *****.

(b) Discontinuance. Subject to the provisions of, and obligations of CTI under, Article XII, CTI may discontinue Commercialization of Licensed Products at any time.

(c) License Following Expiration. Upon expiration of the royalty term

for Licensed Products in the country as described above, CTI shall thereafter have an exclusive (even as to PG-TXL), paid-up license to PG-TXL Know-How to make, have made, use, sell, offer for sale, have sold and import that Licensed Products in that country. In such event, CTI shall retain responsibility for, and indemnify PG-TXL from, the payment of all applicable royalties and other obligations owed to a Third Party with respect to Licensed Products.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 6.02. Royalty Reports and Payments. CTI shall make royalty payments to PG-TXL within ***** days after the end of each calendar quarter in which Net Sales occurred. A report summarizing the Net Sales of Licensed Products during the relevant quarter on a country-by-country basis shall be delivered to PG-TXL within ***** days following the end of each calendar quarter for which royalties are due. The final quarterly payment of every calendar year will include any additional payment or relevant credit to account for any difference in actual annual Net Sales for the applicable calendar year and the prior year's annual Net Sales.

SECTION 6.03. Payments; Interest. Any payments due under this Agreement shall be due on such date as specified in this Agreement and, in the event such date is a day on which commercial banks are not authorized to conduct business in either Houston, Texas,

or Seattle, Washington, then the next succeeding business day, and shall be made by wire transfer to a designated bank account of the receiving Party.

Any failure by a Party to make a payment within five (5) days after the date when due shall obligate such Party to pay interest to the receiving Party at a rate per annum equal to the prime rate as quoted in the Eastern edition of the Wall Street Journal as of the date such payment is due and, in the event such a rate is not quoted on such date then on the immediately preceding date such rate is quoted, such interest due and payable upon the payment of principal otherwise due and payable.

SECTION 6.04. Taxes. The Party receiving royalties shall pay any and all taxes levied on account of royalties it receives under this Agreement. If laws or regulations require that taxes be withheld, the Party paying royalties will (i) deduct those taxes from the remittable royalty, (ii) timely pay the taxes to the proper taxing authority, and (iii) send proof of payment to the other Party within thirty (30) days of receipt of confirmation of payment from the relevant taxing authority. The Party paying royalties agrees to take all lawful and reasonable efforts to minimize such taxes to the other Party.

SECTION 6.05. Payments to or Reports by Affiliates. Any payment required under any provision of this Agreement to be made to either Party or any report required to be made by any Party shall be made to or by an Affiliate of that Party if designated by that Party as the appropriate recipient or reporting entity without relieving such party from responsibility for such payment or report.

SECTION 6.06. Payment Currency. Payments by CTI under this Agreement shall be paid to PG-TXL in U.S. dollars by wire transfer of immediately available funds to an account at a commercial bank designated by PG-TXL pursuant to this Article VI at least ten (10) business days before payment is due. Where payments are based on Net Sales in countries other than the United States, the amount of such Net Sales expressed in the currency of each country shall be converted first into the then-applicable European currency, and then into U.S. dollars at the average exchange rate (calculated at the average of the "bid" and "asked" exchange rate) for the applicable quarter. In determining the average exchange rate for any quarter, the standard shall be fifty percent (50%) of the sum of (i) the rate quoted by Reuters (or a different independent wire service providing international spot exchange rates as agreed to by the Parties) in New York at 1:00 p.m. on the last business day of the applicable quarter; plus (ii) the rate quoted by Reuters (or the approved successor service) in New York at

1:00 p.m. on the last business day of the quarter immediately preceding the applicable quarter.

ARTICLE VII

MANUFACTURE, SALES AND SUPPLY

SECTION 7.01. Manufacture and Supply of Licensed Products by CTI. CTI shall be the sole Party responsible for the manufacture, sale and supply of Licensed Products and shall use commercially reasonable efforts to manufacture, sell, market and supply Licensed Products (or arrange for such manufacture and supply) to meet demand for Licensed Products throughout the Territory. PG-TXL shall provide reasonable assistance to CTI with respect to the transfer of all manufacturing capabilities from PG-TXL (or its subcontractors) to CTI.

SECTION 7.02. Regulatory Approval for Manufacturing. CTI will use commercially reasonable efforts to make necessary filings to obtain, or to cause a Third Party manufacturer to make necessary filings to obtain, Regulatory Approval for the manufacture of each Licensed Product as part of the approval of a Drug Approval Application for such Licensed Product.

ARTICLE VIII

CONFIDENTIALITY

SECTION 8.01. Confidentiality; Exceptions. Except to the extent expressly authorized by this Agreement or otherwise agreed in writing, the Parties agree that the receiving Party shall keep confidential and shall not publish or otherwise disclose or use for any purpose other than as provided for in this Agreement: (i) any Information or other information and materials furnished to it by the other Party pursuant to this Agreement, (ii) any Information developed during the course of the collaboration hereunder, or (iii) any provisions of this Agreement that may become the subject of an effective order of the Securities and Exchange Commission granting confidential treatment pursuant to the Securities Act of 1934, as amended (collectively, "Confidential Information"), except to the extent that it can be established by the receiving Party that such Confidential Information:

(a) was already known to the receiving Party, other than under an obligation of confidentiality, at the time of disclosure by the other Party;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party in breach of this Agreement;

(d) was disclosed to the receiving Party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the disclosing Party not to disclose such information to others; or

(e) was independently discovered and/or developed by the receiving Party as documented in its corporate records.

SECTION 8.02. Authorized Disclosure. Each Party may disclose Confidential Information hereunder to the extent such disclosure is reasonably necessary in filing or prosecuting patent applications, prosecuting or defending litigation, filing or updating any Drug Approval Application, complying with applicable governmental regulations or conducting pre-clinical or clinical

trials, provided that if a Party is required by law or regulation to make any such disclosures of the other Party's Confidential Information it will, except where impracticable for necessary disclosures, for example in the event of medical emergency, give reasonable advance notice to the other Party of such disclosure requirement and, except to the extent inappropriate in the case of patent applications, will use its reasonable efforts to secure confidential treatment of such Confidential Information required to be disclosed. In addition, and with prior notice to the other Party of each Third Party with whom a confidential disclosure agreement is being entered into, each Party shall be entitled to disclose, under a binder of confidentiality, Confidential Information to any Third Party for the purpose of carrying out the purposes of this Agreement. Nothing in this Article VIII shall restrict any Party from using for any purpose any Confidential Information independently developed by it during the course of the collaboration hereunder, or from using Confidential Information that is specifically derived from pre-clinical or clinical trials to carry out Regulatory Approval, marketing, sales or professional services support functions as is customary in the pharmaceutical industry.

SECTION 8.03. Survival. This Article VIII shall survive the termination or expiration of this Agreement.

SECTION 8.04. Termination of Prior Agreement. This Agreement supersedes the Secrecy Agreement between PG-TXL and CTI dated as of January 14, 1997, and the Letter Agreement between PG-TXL and CTI dated June 30, 1998.

SECTION 8.05. Publications. Prior to the launch of Licensed Products in the Territory, CTI will determine the overall strategy for publication in support of Licensed Products in the Territory. Notwithstanding any term of Section 8.06 below, the Parties recognize the need for scientific publications pertaining to development of Licensed Products and the Parties will cooperate with each other to provide for such publications. The Parties will use reasonable efforts to obtain the voluntary consent of any Third Party granted publication rights related to Licensed Products prior to the Effective Date to comply with reasonable notice and timing requests and will promptly review any publications delivered for review.

SECTION 8.06. Publicity Review. Subject to Section 11.02 and the further provisions of this Section 8.06, PG-TXL shall not originate any written publicity, news release, or other announcement or statement relating to this Agreement or to performance hereunder or the existence of an arrangement between the Parties (collectively, "Written Disclosure"), without the prior prompt review and written approval of CTI, which approval shall not be unreasonably withheld or delayed. Notwithstanding the foregoing provisions of this Section 8.06, PG-TXL may make any public Written Disclosure it believes in good faith based upon the advice of counsel is required by applicable law, provided that prior to making such Written Disclosure, PG-TXL shall provide CTI with a copy of the materials proposed to be disclosed at least thirty (30) days prior to (i) submission for publication or (ii) disclosure to a Third Party. CTI shall, not more than thirty (30) days after the receipt of any such proposed publication or disclosure from PG-TXL, submit its suggestions, comments or objections, if any, to PG-TXL. Any confidential matter as determined by CTI shall be deleted. In the event CTI believes patentable subject matter is disclosed in such data or information it shall, within twenty (20) days of its receipt thereof, notify PG-TXL and publication or disclosure will thereupon be withheld until CTI files a patent application thereon, or until CTI reasonably determines after sufficient investigation that no patentable invention exists, whichever period is shorter. The terms of this Agreement may also be disclosed by PG-TXL to (i) government agencies where required by law, or (ii) Third Parties with the prior written consent of CTI, which consent shall not be unreasonably withheld or delayed, so long as such disclosure is made under a binder of confidentiality and so long as highly sensitive terms and conditions such as financial terms are extracted from the Agreement or not disclosed upon the request of CTI. All Written Disclosures shall be factual and as brief as is reasonable under the circumstances. Upon request by CTI, PG-TXL agrees to prepare a mutually agreed press release and question and answer document with respect to this Agreement. PG-TXL agrees that it will use reasonable efforts to cause all Written Disclosures and oral statements relating hereto to be consistent with the answers specified in such

question and answer document.

ARTICLE IX

OWNERSHIP OF INTELLECTUAL PROPERTY AND PATENT RIGHTS

SECTION 9.01. Patent Prosecution.

(a) CTI shall be responsible for and have sole control over all Patent prosecution hereunder.

(b) CTI shall file, prosecute and maintain all U.S. and foreign Patent applications identified on Exhibit A and resulting Patents by counsel of its choice on behalf of PG-TXL. CTI shall use its best efforts to ensure that the PG-TXL Patent Rights are developed and maintained; CTI shall promptly provide PG-TXL with copies of relevant documentation so that PG-TXL may be informed of the continuing prosecution.

(c) In the event PG-TXL, pursuant to Section 2.04(a), converts the rights granted by PG-TXL to CTI under Section 4.01 from exclusive to non-exclusive and, thereafter, grants additional licenses under the Patent Rights to Third Parties, such prosecution and maintenance-related expenses going forward will be shared equally between CTI and all such Third Party licensees.

(d) PG-TXL shall execute and deliver such documents and take such other actions as CTI reasonably may request in connection with the preparation, filing, prosecution and maintenance of any such Patent or Patent application identified in Exhibit A.

SECTION 9.02. Third Party Patent Rights. Each Party agrees to bring to the attention of the other Party any Third Party Patent it discovers, or has discovered, and which relates to the subject matter of this Agreement.

SECTION 9.03. Enforcement Rights.

(a) Notification of Infringement. If either Party learns of any infringement or threatened infringement by a Third Party of the PG-TXL Patent Rights, such Party shall promptly notify the other Party and shall provide such other Party with all available evidence of such infringement.

(b) Enforcement in the Territory. CTI shall have the right, but not the obligation, to institute, prosecute and control at its own expense any action or proceeding with respect to infringement of any PG-TXL Patent Rights covering the manufacture, use, importation, sale or offer for sale of Licensed Products being developed or marketed in the Territory, by counsel of its own choice. PG-TXL shall have the right, at its own expense, to be represented in any action by counsel of its own choice. If CTI fails to bring an action or proceeding or otherwise take appropriate action to abate such infringement within a period of one hundred eighty (180) days of notice by PG-TXL to CTI requesting action, PG-TXL will have the right to bring and control any such action or proceeding relating to PG-TXL Patent Rights by counsel of its own choice and CTI will have the right to be represented in any such action by counsel of its own choice and at its own expense. If one Party brings any such action or proceeding, the other Party agrees to be joined as a party plaintiff if necessary to prosecute the action or proceeding and to give the first Party reasonable assistance and authority to file and prosecute the suit. Any damages or other monetary awards recovered pursuant to this Section 9.03(b) shall be allocated first to the costs and expenses of the Party bringing suit, then to the costs and expenses, if any, of the other Party. Such allocation of costs and expenses shall be deducted first from compensatory damages and then from punitive and exemplary damages. In the event that CTI brings such action, any amounts remaining shall be distributed as follows: compensatory damages shall be treated as Net Sales in the country and calendar quarter received and punitive and exemplary damages shall be paid equally to CTI and PG-TXL. In the event that PG-TXL brings such action, one hundred percent (100%) of any amounts

remaining shall be payable to PG-TXL.

(c) Settlement with a Third Party. The Party that controls the prosecution of a given action shall also have the right to control settlement of such action; provided, however, that if one Party controls, no settlement shall be entered into without the written consent of the other Party (which consent shall not be unreasonably withheld) if such settlement would materially and adversely affect the interests of such other Party.

SECTION 9.04. Defense and Settlement of Third Party Claims. If a Third Party asserts that a patent, trademark or other intangible right owned by it is infringed by any Licensed Products in the Territory, CTI will be solely responsible for defending against any such assertions at its cost and expense. The costs of any such settlement (including, without limitation, damages, expense reimbursements, compliance, future royalties or other amounts) shall be paid exclusively by CTI.

SECTION 9.05. Patent Expenses. CTI shall be obligated to pay all worldwide Patent Expenses subject to the terms of this Agreement. CTI shall promptly reimburse PG-TXL for all Patent Expenses undertaken by PG-TXL at CTI's request subsequent to the execution of this Agreement.

SECTION 9.06. Trademarks. CTI shall be responsible for the selection, registration and maintenance of all trademarks which it employs in connection with Licensed Products and shall own and control such trademarks (and pay any costs in connection therewith). PG-TXL recognizes the exclusive ownership by CTI of any proprietary CTI name, logotype or trademark furnished by CTI (including CTI's Affiliates) for use in connection with Licensed Products. PG-TXL shall not, either while this Agreement is in effect, or at any time thereafter, register, use or attempt to obtain any right in or to any such name, logotype or trademark or in and to any name, logotype or trademark confusingly similar thereto.

ARTICLE X

REPRESENTATIONS AND WARRANTIES

SECTION 10.01. Representations and Warranties.

(a) Each of the Parties hereby represents and warrants to the other Party that this Agreement is a legal and valid obligation binding upon such Party and enforceable in accordance with its terms. The execution, delivery and performance of the Agreement by such Party does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it is bound, nor violate any law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

(b) PG-TXL hereby represents and warrants to CTI as follows:

(i) PG-TXL has not, and during the term of the Agreement neither Party will, (x) grant any right to any Third Party relating to the PG-TXL Patent Rights and to PG-TXL Know-How which would conflict with the rights granted to either Party hereunder, and (y) to the best of its knowledge neither Party is employing (as an employee or consultant) any person that has been debarred by the FDA.

(ii) To the best of its knowledge PG-TXL is not obligated under any agreement as of the Effective Date to pay any Third Party royalties with respect to Licensed Products other than (A) royalties owed by PG-TXL to MD Anderson in accordance with the terms of the MD Anderson Release and (B) royalties owed by PG-TXL to the Licensors under the April

30 License. As of the Effective Date there are no such agreements in place other than the agreements comprising the MD Anderson Release and the April 30 License.

(iii) PG-TXL has given CTI access to all of its laboratory, pre-clinical and clinical records and all other data generated by Third Parties on behalf of PG-TXL regarding Licensed Products in existence as of the Effective Date.

(iv) As of the Effective Date, except as it may have previously disclosed to CTI in writing or otherwise, PG-TXL has not received any notices of infringement or any written communications relating in any way to a possible infringement with respect to any PG-TXL Patent Rights.

(v) Neither PG-TXL nor any of its employees have misappropriated any trade secrets with respect to the PG-TXL Know-How or PG-TXL Patent Rights.

SECTION 10.02. Performance by Affiliates of CTI. PG-TXL recognizes that CTI may perform some or all of its obligations under this Agreement through Affiliates, provided, however, that CTI shall remain responsible for and be a guarantor of the performance by its Affiliates and shall cause its Affiliates to comply with the provisions of this Agreement in connection with such performance.

ARTICLE XI

INFORMATION AND REPORTS

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 11.01. Records of Revenues and Expenses.

(a) CTI will maintain complete and accurate records which are relevant to revenues, costs, expenses and payments on a country-by-country basis under this Agreement and such records shall be open during reasonable business hours for a period of *****

years from creation of individual records for examination at PG-TXL's expense and not more often than once each year by a certified public accountant selected by PG-TXL, or PG-TXL's internal accountants unless CTI reasonably objects to the use of such internal accountants, for the sole purpose of verifying for PG-TXL the correctness of calculations and classifications of such revenues, costs, expenses or payments made under this Agreement. Each Party shall bear its own costs related to such audit; provided that, for any underpayments greater than ***** by CTI, CTI shall pay PG-TXL the amount of underpayment, interest as provided for in Section 6.03 from the time the amount was due and PG-TXL's out-of-pocket expenses. For any underpayments less than ***** by CTI found under this Section 11.01, CTI shall pay PG-TXL the amount of underpayment. Any overpayments by CTI will be refunded to CTI or credited to future royalties, at CTI's election. Any records or accounting information received from the other Party shall be Confidential Information for purposes of Article VIII. Results of any such audit shall be provided to both Parties, subject to Article VIII.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission).

(b) If there is a dispute between the Parties following any audit performed pursuant to Section 11.01(a), either Party may refer the issue (an "Audit Disagreement") to an independent certified public accountant for

resolution. In the event an Audit Disagreement is submitted for resolution by either Party, the Parties shall comply with the following procedures:

(i) The Party submitting the Audit Disagreement for resolution shall provide written notice to the other Party that it is invoking the procedures of this Section 11.01(b).

(ii) Within thirty (30) business days of the giving of such notice, the Parties shall jointly select a recognized international accounting firm to act as an independent expert to resolve such Audit Disagreement.

(iii) The Audit Disagreement submitted for resolution shall be described by the Parties to the independent expert, which description may be in written or oral form, within ten (10) business days of the selection of such independent expert.

(iv) The independent expert shall render a decision on the matter as soon as practicable.

(v) The decision of the independent expert shall be final and binding unless such Audit Disagreement involves alleged fraud, breach of this Agreement or construction or interpretation of any of the terms and conditions hereof.

(vi) All fees and expenses of the independent expert, including any third party support staff or other costs incurred with respect to carrying out the procedures specified at the direction of the independent expert in connection with such

Audit Disagreement, shall be borne by CTI in the event that a discrepancy of more than ***** results from such decision, and by the Parties equally in all other cases.

SECTION 11.02. Use of Names. Neither Party shall use the name of the other Party in relation to this transaction in any public announcement, press release or other public document without the written consent of such other Party, which consent shall not be unreasonably withheld or delayed; provided, however, that either Party may use the name of the other Party in any document filed with any regulatory agency or authority, including the FDA and the Securities and Exchange Commission. PG-TXL agrees not to use the name "CTI" in relation to this transaction in any press release, public announcement or other public document without the approval of CTI, which approval shall not be unreasonably withheld or delayed.

ARTICLE XII

TERM AND TERMINATION

SECTION 12.01. Term. This Agreement shall commence as of the Effective Date and, unless sooner terminated as provided herein shall continue in effect until no royalties are payable under Article VI hereunder to PG-TXL.

SECTION 12.02. Termination.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(a) Notwithstanding any other provision herein, CTI may terminate this Agreement on a country-by-country basis or in its entirety (i) upon ***** days advance written notice to PG-TXL in the event issues regarding the safety of Licensed Products arise during Development or clinical data obtained reveal a materially adverse tolerability profile for Licensed Products in humans; or (ii)

for any reason upon ***** days advance written notice.

(b) Notwithstanding any other provision herein, either Party may terminate this Agreement pursuant to Section 3.01, on a country-by-country basis or in its entirety, if CTI shall fail to make any license fee payment as set forth in Section 3.01.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(c) Failure by CTI or PG-TXL to comply with any other of the respective material obligations and conditions contained in this Agreement shall entitle the other Party to give the Party in default notice requiring it to cure such default. If such default is not cured within ***** days after receipt of such notice, the notifying Party shall be entitled (without prejudice to any of its other rights conferred on it by this Agreement) to terminate this Agreement or in the event of an uncured material breach by PG-TXL, effect the rights of CTI set forth in Section 12.02(e) by giving a notice to take effect immediately. Notwithstanding the foregoing, in the event of a non-monetary default, if the default is not

reasonably capable of being cured within the ***** day cure period by the defaulting Party and such defaulting Party is making a good faith effort to cure such default, the notifying Party may not terminate this Agreement, provided, --------
however, that the notifying Party may terminate this Agreement if such default - -------
is not cured within ***** days of such original notice of default. The right of either Party to terminate this Agreement as hereinabove provided shall not be affected in any way by its waiver of, or failure to take action with respect to any previous default.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(d) In the event that one of the Parties hereto shall go into liquidation, a receiver or a trustee be appointed for the property or estate of that Party and said receiver or trustee is not removed within ***** days, or the Party makes an assignment for the benefit of creditors (collectively, a "Bankruptcy Event"), and whether any of the aforesaid Bankruptcy Events be the - -----------------
outcome of the voluntary act of that Party, or otherwise, the other Party shall be entitled to terminate this Agreement (or in the event PG-TXL suffers such a Bankruptcy Event, CTI may effect its rights described in Section 12.02(e) forthwith by giving a written notice to PG-TXL).

(e) In the event that this Agreement is terminated by CTI in one or more countries or in its entirety in accordance with Section 12.02(a), and in the event that the Agreement is terminated by either Party in its entirety in accordance with Sections 12.02(b) or (c) hereof, CTI will with respect to each country for which the termination applies entirely:

(i) deliver to PG-TXL the PG-TXL Know-How and assign to PG-TXL CTI's rights in said PG-TXL Know-How and PG-TXL Patent Rights if any, in either case relating solely to the country that is the subject of the termination;

(ii) not commercialize a product incorporating the PG-TXL Know-How in such country;

(iii) not infringe any of the PG-TXL Patent Rights in such country;

(iv) make all payments accrued under this Agreement with respect to such country prior to the effective termination date;

(v) transfer all regulatory filings and approvals related to Licensed Products in such country to PG-TXL upon PG-TXL's written request for same;

(vi) transfer to PG-TXL responsibility for and control of ongoing work of CTI related to Licensed Products, Affiliates and Third Parties in an expeditious and orderly manner with the costs for such work assumed by PG-TXL as of the date of notice;

(vii) reconvey to PG-TXL all rights to the trademark for "PG-TXL" granted pursuant to Section 4.02; and

(viii) sell to PG-TXL, at any time within ninety (90) days of such termination, at PG-TXL's election, all or any portion of the inventory of Licensed Products owned by CTI or its Affiliates which are intended for sale in such country at a price equal to CTI's or its Affiliate's cost (which, if CTI is the manufacturing party, will be CTI's labor and material cost without further markup) for such inventory. Such election shall be made by PG-TXL in writing and within thirty (30) days of such election, CTI shall ship at PG-TXL's cost and direction such inventory to PG-TXL. PG-TXL shall pay for such inventory within forty-five (45) days of receipt of such inventory.

(f) In the event of a Bankruptcy Event related to PG-TXL, CTI may elect in lieu of terminating this Agreement to declare the license granted pursuant to this Agreement to be irrevocable. From the date of receipt of notice of such election, PG-TXL shall have no further rights or obligations under this Agreement, except that PG-TXL may enforce any financial obligations of CTI, including those arising under Articles III and VI herein before or after such election.

(g) Except where expressly provided for otherwise in this Agreement, termination of this Agreement shall not relieve the Parties hereto of any liability, including any obligation to make payments hereunder, which accrued hereunder prior to the effective date of such termination, nor preclude any Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice any Party's right to obtain performance of any obligation.

SECTION 12.03. Surviving Rights. The rights and obligations set forth in this Agreement shall extend beyond the term or termination of the Agreement only to the extent expressly provided for herein, or the extent that the survival of such rights or obligations are necessary to permit their complete fulfillment or discharge.

ARTICLE XIII

INDEMNIFICATION

SECTION 13.01. Indemnification. With respect to Licensed Products (determined on a country by country basis):

(a) Except as provided in Article 13.01(b), CTI hereby agrees to save, defend and hold PG-TXL and its agents and employees harmless from and against any and all suits, claims, actions, demands, liabilities, expenses and/or losses, including reasonable legal expenses and attorneys' fees (collectively, "Losses"), resulting from the commercial

sale of Licensed Products except to the extent such Losses result from the negligence or willful misconduct of PG-TXL or the infringement by PG-TXL (due to actions taken by PG-TXL prior to the Effective Date) of Third Party intellectual property rights, in which case PG-TXL hereby agrees to save, defend and hold CTI and its agents and employees harmless from any and all such Losses.

(b) Except as provided in Article 13.01(a), CTI and PG-TXL hereby agree to save, defend and hold the other Party and its agents and employees harmless from and against any and all Losses resulting directly from the Development of Licensed Products to the extent such Development was performed by

such Party except to the extent such Losses result from the negligence or willful misconduct of the other Party, in which case such Party hereby agrees to save, defend and hold the other Party and its agents and employees harmless from any and all such Losses.

(c) Each indemnified Party agrees to give the indemnifying Party prompt written notice of any Loss or discovery of fact upon which such indemnified Party intends to base a request for indemnification under Sections 13.01(a) or (b). Each Party shall furnish promptly to the other copies of all papers and official documents received in respect of any Loss. With respect to any Loss relating solely to the payment of money damages and which will not result in the indemnified Party becoming subject to injunctive or other relief or otherwise adversely affecting the business of the indemnified Party in any manner, and as to which the indemnifying Party shall have acknowledged in writing the obligation to indemnify the indemnified Party hereunder, the indemnifying Party shall have the sole right to defend, settle or otherwise dispose of such Loss, on such terms as the indemnifying Party, in its sole discretion, shall deem appropriate. The indemnifying Party shall obtain the written consent of the indemnified Party, which shall not be unreasonably withheld or delayed, prior to ceasing to defend, settling or otherwise disposing of any Loss if as a result thereof the indemnified Party would become subject to injunctive or other equitable relief or any remedy other than the payment of money, which payment would be the responsibility of the indemnifying Party. The indemnifying Party shall not be liable for any settlement or other disposition of a Loss by the indemnified Party which is reached without the written consent of the indemnifying Party, which consent shall not be unreasonably withheld or delayed. The reasonable costs and expenses, including reasonable fees and disbursements of counsel incurred by any indemnified Party in connection with any Loss, shall be reimbursed on a quarterly basis by the indemnifying Party, without prejudice to the indemnifying Party's right to contest the indemnified Party's right to indemnification and subject to refund in the event the indemnifying Party is ultimately held not to be obligated to indemnify the indemnified Party.

ARTICLE XIV

APRIL 30 LICENSE; SECURITY INTEREST

SECTION 14.01. April 30 License.

(a) PG-TXL shall cause CTI to be added to Section 9.0(i)(ii) of the April 30 License and thereby receive copies of all notices and communications thereunder.

(b) PG-TXL shall not permit the April 30 License to be amended or supplemented in any manner without CTI's prior written consent.

(c) At any time and from time to time, CTI, on behalf of PG-TXL may make payments owed by PG-TXL to the April 30 Licensors under the April 30 License, directly to the April 30 Licensors.

(d) PG-TXL will comply in all respects with its obligations under the April 30 License, and, in no event will PG-TXL make an election to reject the April 30 License in connection with any bankruptcy, insolvency or similar proceeding.

SECTION 14.02. Security Interest.

(a) Grant of Security Interest. As security for the performance of its obligations under this Agreement, PG-TXL hereby pledges, assigns, transfers, hypothecates and sets over to CTI, and hereby grants to CTI a security interest in, all of PG-TXL's right, title and interest in, to and under the April 30 License.

(b) PG-TXL Remains Liable. Anything herein to the contrary notwithstanding, (i) PG-TXL shall remain liable under the April 30 License, to the extent set forth therein, to perform all of its duties and obligations thereunder to the same extent as if this Agreement had not been executed, (ii)

the exercise by CTI of any of the rights hereunder shall not release PG-TXL from any of its duties or obligations under the April 30 License, and (iii) CTI shall not have any obligation or liability under the April 30 License by reason of this Agreement, nor shall CTI be obligated to perform any of the obligations or duties of PG-TXL thereunder or to take any action to collect or enforce the April 30 License.

(c) Continuing PG-TXL Security Interest. PG-TXL agrees that this Agreement shall create a continuing security interest in the April 30 License which shall remain in effect until terminated in accordance with Article XII.

(d) Perfection. Within five (5) business days after execution of this Agreement, the parties shall file a financing statement covering this security interest in the April 30 License substantially the form of Exhibit B hereto. PG-TXL shall execute and deliver to CTI at any time and from time to time thereafter, all continuation financing

statements, termination statements, security agreements, documents of title, affidavits, reports, notices, schedules of account, letters of authority and all other documents and instruments, in form satisfactory to CTI, and take all other action, as CTI may request, to perfect and continue perfected, maintain the priority of or provide notice of the request, to perfect and continue perfected, maintain the priority of or provide notice of CTI's security interest in the April 30 License and to accomplish the purposes of this Agreement.

(e) Remedies. Under the terms of the security interest granted by PG-TXL to CTI pursuant to Section 14.02 and subject to Section 12.02(c), upon default by PG-TXL in performance under this Agreement, CTI shall be entitled to all of the rights and remedies (and be subject to the obligations of) a secured creditor upon default as provided in Article 9 of the Texas Uniform Commercial Code. Upon any foreclosure of such security interest, CTI shall owe no fiduciary duties to the April 30 Licensors.

ARTICLE XV

MISCELLANEOUS

SECTION 15.01. Assignment.

(a) CTI may assign any of its rights or obligations under this Agreement in any country to any of its Affiliates or to any sublicensee as provided in Section 4.01; provided, however, that such assignment shall not relieve CTI of its responsibilities for performance of its obligations under this Agreement.

(b) With the prior written consent of CTI, which shall not be unreasonably withheld, PG-TXL may assign its right to receive license fee payments under Section 3.01, milestone payments under Section 3.02, facilities and administration expenses under Section 3.04 and royalty payments under Section 6.01 to any of its Affiliates.

(c) Either Party may assign its rights or obligations under this Agreement in connection with a merger or similar reorganization or the sale of all or substantially all of its assets, or otherwise with the prior written consent of the other Party. This Agreement shall survive any such merger or reorganization of either Party with or into, or such sale of assets to, another party and no consent for such merger, reorganization or sale shall be required hereunder; provided, that in the event of such merger, reorganization or sale, no intellectual property rights of the acquiring corporation shall be included in the technology licensed hereunder.

(d) This Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of the Parties. Any assignment not in accordance with this Agreement shall be void.

SECTION 15.02. Retained Rights. Nothing in this Agreement shall limit in any respect the right of either Party to conduct research and development and to market products using such Party's technology other than as herein expressly provided.

SECTION 15.03. Force Majeure. Neither Party shall lose any rights hereunder or be liable to the other Party for damages or losses on account of failure of performance by the defaulting Party if the failure is occasioned by government action, war, fire, explosion, flood, strike, lockout, embargo, act of God, or any other cause beyond the control of the defaulting Party, provided that the Party claiming force majeure has extended all reasonable efforts to avoid or remedy such force majeure, continues to employ such efforts and promptly notifies the other Party of such force majeure event.

SECTION 15.04. Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

SECTION 15.05. No Trademark Rights. Except as otherwise provided herein, no right, express or implied, is granted by the Agreement to use in any manner the name "CTI," or any other trade name or trademark of the other Party or its Affiliates in connection with the performance of the Agreement.

SECTION 15.06. Notices. All notices hereunder shall be in writing and shall be deemed given if delivered personally or by facsimile transmission (receipt confirmed in writing by the receiving Party), telexed, mailed by registered or certified mail (return receipt requested), postage prepaid, or sent by express courier service, to the Parties at the following addresses (or at such other address for a Party as shall be specified by like notice; provided that notices of a change of address shall be effective only upon receipt thereof).

(a) If to PG-TXL:

PG-TXL Company, L.P.
3324 Pittsburgh Street
Houston, Texas 77005
Attention: Sidney Wallace, M.D.

With a copy to:

Mayor, Day, Caldwell & Keeton, LLP
700 Louisiana, Suite 1900
Houston, TX 77002-2778
Attention: Eddy Rogers
Telecopy: (713) 225-7047

(b) If to CTI:

Cell Therapeutics, Inc.
201 Elliott Avenue West
Seattle, Washington 98119
Attn: James A. Bianco, M.D.
President and Chief Executive Officer

With a copy to:

Brobeck, Phleger & Harrison LLP
One Market
Spear Street Tower
San Francisco, CA 94105
Attention: Michael J. Kennedy
Telecopy: (415) 442-1010

SECTION 15.07. Waiver. Except as specifically provided for herein, the waiver from time to time by either of the Parties of any of their rights or their failure to exercise any remedy shall not operate or be construed as a continuing waiver of same or any other of such Party's rights or remedies provided in this Agreement.

SECTION 15.08. Severability. If any term, covenant or condition of this Agreement or the application thereof to any Party or circumstances shall, to any extent or in any country, be held to be invalid or unenforceable, then (i) the remainder of this Agreement, or the application of such term, covenant or condition to Parties or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each term, covenant or condition of this Agreement shall be valid and be enforced to the fullest extent permitted by law; and (ii) the Parties hereto covenant and agree to renegotiate any such term, covenant or application thereof in good faith in order to provide a reasonably acceptable alternative to the term, covenant or condition of this Agreement or the application thereof that is invalid or unenforceable, it being the intent of the Parties that the basic purposes of this Agreement are to be effectuated.

SECTION 15.09. Ambiguities. Ambiguities, if any, in this Agreement shall not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision.

SECTION 15.10. Governing Law. This Agreement shall be governed by and interpreted under the laws of the State of New York as applied to contracts entered into and performed entirely in New York by New York residents.

SECTION 15.11. Arbitration. The parties shall submit any dispute concerning this interpretation of or the enforcement of rights and duties under this Agreement to final

and binding arbitration pursuant to the American Arbitration Association. At the request of any party, the arbitrators, attorneys, parties to the arbitration, witnesses, experts, court reports, or other persons present at the arbitration shall agree in writing to maintain the strict confidentiality of the arbitration proceedings. Arbitration shall be conducted by a single, neutral arbitrator, or, at the election of any party, three neutral arbitrators, appointed in accordance with the Commercial Arbitration Rules of the American Arbitration Association in the City of Phoenix, Arizona. The award of the arbitrator(s) shall be enforceable according to the applicable provisions of the Arizona Code of Civil Procedure. The arbitrator(s) may award damages and/or permanent injunctive relief, but in no event shall the arbitrator(s) have the authority to award punitive or exemplary damages. Notwithstanding the foregoing, a party may apply to a court of competent jurisdiction for relief in the form of a temporary restraining order or preliminary injunction, or other provisional remedy pending final determination of a claim through arbitration in accordance with the paragraph. If proper notice of any hearing has been given, the arbitrator(s) will have full power to proceed to take evidence or to perform any other acts necessary to arbitrate the matter in the absence of any party who fails to appear.

SECTION 15.12. Headings. The sections and paragraph headings contained herein are for the purposes of convenience only and are not intended to define or limit the contents of said sections or paragraphs.

SECTION 15.13. Counterparts. This Agreement may be executed in one or more counterparts (and by facsimile), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

SECTION 15.14. Entire Agreement; Amendments. This Agreement, including all Exhibits attached hereto and thereto, and all documents delivered

concurrently herewith and therewith, set forth all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties hereto and supersede and terminate all prior agreements and understandings between the Parties. There are no covenants, promises, agreements, warranties, representations, conditions or understandings, either oral or written, between the Parties other than as set forth herein and therein. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties hereto unless reduced to writing and signed by the respective authorized officers of the Parties. This Agreement, including without limitation the exhibits, schedules and attachments thereto, are intended to define the full extent of the legally enforceable undertakings of the Parties hereto, and no promise or representation, written or oral, which is not set forth explicitly is intended by either party to be legally binding. Both Parties acknowledge that in deciding to enter into the Agreement and to consummate the transaction contemplated thereby neither has relied upon any statement or representations, written or oral, other than those explicitly set forth therein.

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

SECTION 15.15. Expenses. Except as otherwise specified in this Agreement, all costs and expenses, including, without limitation, fees and disbursements of counsel,

financial advisors and accountants, incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the party incurring such costs and expenses; provided, however, that upon execution of this Agreement, CTI shall pay PG-TXL a one-time expense reimbursement in the amount of ***** to cover historical legal expenses incurred by PG-TXL and the Initial Royalty (as defined in the April 30 License) payable by PG-TXL under the April 30 License.

SECTION 15.16. Independent Contractors. The status of the Parties under this Agreement shall be that of independent contractors. Neither Party shall have the right to enter into any agreements on behalf of the other Party, nor shall it represent to any person that it has any such right or authority. Nothing in this Agreement shall be construed as establishing a partnership or joint venture relationship between the Parties.

IN WITNESS WHEREOF, PG-TXL and CTI have caused this Agreement to be executed as of the date first written above by their respective officers thereunto duly authorized.

PG-TXL COMPANY, L.P.

By: Fem.CADeT Incorporated, its General Partner

By: _____

Name: Sidney Wallace, M.D.
Title: President

CELL THERAPEUTICS, INC.

By: _____

Name: James A. Bianco, M.D.
Title: President and Chief Executive Officer

EXHIBIT A

PG-TXL PATENT RIGHTS

(The information below marked by ***** has been omitted by a request for confidential treatment. The omitted portion has been separately filed with the Commission.)

(1) U.S. Patent Application No. *****, filed March 11, 1997 which is a converted utility patent application from Provisional Application No. 60/013184, filed with the United States Patent and Trademark Office on March 12, 1996;

(2) Intn'l Patent Application No. *****, filed March 11, 1997; and

(3) U.S. Patent Application No. *****, filed March 30, 1998.

EXHIBIT B

FORM OF FINANCING STATEMENT FOR APRIL 30 LICENSE

EXHIBIT 22.1

SUBSIDIARIES OF CELL THERAPEUTICS, INC.

CTI Technologies, Inc., A Nevada Corporation

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-35919) pertaining to the Cell Therapeutics, Inc. 1994 Equity Incentive Plan and the Cell Therapeutics, Inc. 1996 Employee Stock Purchase Plan and to the incorporation by reference in the Registration Statement (Form S-3 No. 333-39385) of Cell Therapeutics, Inc. and in the related Prospectus of our report dated February 12, 1999, with respect to the financial statements of Cell Therapeutics, Inc. included in the Annual Report (Form 10-K) for the year ended December 31, 1998.

ERNST & YOUNG LLP

Seattle, Washington
March 30, 1999

<ARTICLE> 5
<LEGEND>
THE CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1998 AND THE CONSOLIDATED
STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 1998.
</LEGEND>

<PERIOD-TYPE>	YEAR
<FISCAL-YEAR-END>	DEC-31-1998
<PERIOD-START>	JAN-01-1998
<PERIOD-END>	DEC-31-1998
<CASH>	4,362,486
<SECURITIES>	42,709,606
<RECEIVABLES>	3,254,491
<ALLOWANCES>	0
<INVENTORY>	0
<CURRENT-ASSETS>	51,246,719
<PP&E>	16,517,674
<DEPRECIATION>	9,691,777
<TOTAL-ASSETS>	58,156,495
<CURRENT-LIABILITIES>	7,103,919
<BONDS>	3,887,603
<PREFERRED-MANDATORY>	0
<PREFERRED>	0
<COMMON>	169,618,635
<OTHER-SE>	(122,453,662)
<TOTAL-LIABILITY-AND-EQUITY>	58,156,495
<SALES>	0
<TOTAL-REVENUES>	16,294,542
<CGS>	0
<TOTAL-COSTS>	40,831,174
<OTHER-EXPENSES>	0
<LOSS-PROVISION>	0
<INTEREST-EXPENSE>	435,279
<INCOME-PRETAX>	(24,971,911)
<INCOME-TAX>	0
<INCOME-CONTINUING>	(24,971,911)
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	(24,971,911)
<EPS-PRIMARY>	(1.62)
<EPS-DILUTED>	(1.62)