SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Year Ended December 31, 1996

COMMISSION FILE NO. 0-27352

HYBRIDON, INC.
(Exact name of registrant as specified in its charter)

Delaware	3072298
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
620 Memorial Drive, Cambridge, Massachusetts	02139
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (617) 528-7000

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

NONE

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

Common Stock, $.001 par value

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

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

On March 14, 1997, the aggregate market value of voting Common Stock held by nonaffiliates of the registrant was $118,762,093, based on the last reported sale price of the registrant's Common Stock on the Nasdaq National Market on March 14, 1997. There were 25,173,502 shares of Common Stock outstanding as of March 14, 1997.

DOCUMENTS INCORPORATED BY REFERENCE

DOCUMENT	Part of Form 10-K INTO WHICH INCORPORATED
Portions of the Registrant's Proxy Statement with respect to the Annual Meeting of Stockholders to be held on May 19, 1997	Items 10, 11, 12 and 13 of Part III

PART I

ITEM 1. BUSINESS.

GENERAL

Hybridon, Inc. ("Hybridon" or the "Company"), established in 1989, is a leader in the discovery and development of novel genetic medicines based primarily on antisense technology. Antisense technology involves the use of synthetic segments of DNA (oligonucleotides) constructed through rational drug design to interact at the genetic level with target messenger RNA, which codes for the production of proteins. In contrast to traditional drugs, which are designed to interact with protein molecules associated with diseases, antisense drugs work at the genetic level to interrupt the process by which disease-causing proteins are produced. Drugs based on antisense technology may have broader applicability, greater efficacy and fewer side effects than conventional drugs because antisense compounds are designed to intervene early in the disease process at the genetic level and in a highly specific fashion.

Hybridon has established a leadership position in the antisense field by developing an integrated antisense technology platform based on a combination of patented and proprietary medicinal chemistries, synthetic DNA manufacturing technology and analytical processes. The Company's strategy is to leverage this technology platform by applying its oligonucleotides against a range of genetic targets associated with major diseases, by manufacturing oligonucleotides for its own internal use and on a custom contract basis for sale to third parties and by extending its medicinal chemistries to additional targets through collaborations with large pharmaceutical company partners.

Hybridon's first gene expressive modulation ("GEM") drug candidate, GEM 91 for the treatment of HIV-1 infection and AIDS, is in a confirmatory Phase II clinical trial in advanced AIDS patients. This trial is designed to confirm the preliminary findings from the Company's Ib/II clinical trials of GEM 91 in the U.S. in which a significant decrease was observed in the quantities of cell-associated HIV-1 in circulating blood cells of patients with characteristics of advanced HIV disease. Hybridon is also conducting clinical trials of GEM 132, an advanced chemistry antisense compound for the treatment of CMV. The first trial involves the treatment of CMV retinitis in AIDS patients by intravitreal injection in the eye; the second trial involves the treatment of systemic CMV by intravenous administration. Hybridon believes that its clinical trials of GEM 91 were the first human clinical trials involving intravenous or other systemic administration of an antisense oligonucleotide for the treatment of a viral disease and that its clinical trials of GEM 132 were the first human clinical trials involving administration of an advanced chemistry oligonucleotide into humans.

The Company plans to commence clinical trials of three additional product candidates in the second half of 1997: GEM 231, an antisense compound being developed to inhibit the production of protein kinase A, which is associated with many cancers; GEM 92, an antisense compound being developed for the treatment of HIV-1 infection and AIDS by oral administration; and GEM 220, an

antisense compound being developed to target vascular endothelial growth factor for the treatment of various cancers. All three of these compounds are based on Hybridon's advanced antisense chemistries and, the Company believes, have the potential for oral administration.

In 1996, Hybridon formed its Hybridon Specialty Products Division to manufacture highly purified oligonucleotide compounds both for the Company's internal use and on a custom contract basis for sale to third parties, including the Company's collaborative partners. The Company is manufacturing oligonucleotides in compliance with GMP at its 36,000 square foot leased manufacturing facility, which the Company believes is the first commercial-scale synthetic DNA production facility with a fully integrated manufacturing technology platform, including large-scale synthesis, purification

and proprietary analytical support. The Division first began production of oligonucleotide compounds for sale to third parties in June 1996 and by the end of 1996 had achieved sales revenues of approximately $1.1 million. The Division also has received orders to provide analytical services and plans to expand its product offerings to include proprietary intermediates used in the manufacture of oligonucleotides. In order to strengthen the marketing of the Division's products, the Company has entered into a sales and supply agreement with the Applied Biosystems Division of the Perkin-Elmer Corporation ("Perkin-Elmer") under which Perkin-Elmer refers potential customers to the Company.

Because of the broad applicability of Hybridon's antisense technology platform and its patent estate, the Company's strategy is both to pursue research and development programs on its own and to form a variety of collaborations with pharmaceutical and biotechnology companies and academic and research institutions. These collaborations provide Hybridon with access to resources and expertise not otherwise available and enable the Company to conserve its resources while accelerating research and development. To date, Hybridon has entered into corporate collaborations with G.D. Searle & Co. ("Searle"), a subsidiary of Monsanto Company, in the field of inflammation/immunomodulation, F. Hoffmann-La Roche Ltd. ("Roche") relating to human papilloma virus and hepatitis C virus, and Medtronic, Inc. ("Medtronic") involving the development of a drug delivery device for use in delivering Hybridon's antisense compounds for the treatment of Alzheimer's disease. The Company has developed lead compounds for each of the two disease targets in the Roche collaboration and has received associated milestone payments from Roche.

The Company's accomplishments to date have been based on its integrated antisense technology platform, which includes:

- Advanced Medicinal Chemistries. Hybridon's scientists have designed and produced over 20 proprietary families of synthetic antisense oligonucleotide chemistries. The Company believes that antisense compounds based on these chemistries will demonstrate a range of favorable pharmaceutical attributes and provide flexibility in addressing many biological targets. In particular, the Company believes that its advanced chemistries provide the potential for enhanced metabolic stability, which may result in less frequent dosing and therefore lower costs of therapy. In addition, the Company believes that its advanced chemistries provide the potential for oral administration. In this regard, in a preclinical test in which an advanced antisense oligonucleotide developed by the Company was administered orally to nude mice in which human colon and breast cancer cells had been implanted, a significant antisense-specific anti-tumor effect was exhibited.

- Manufacturing Technology. The Company has developed a manufacturing technology platform which integrates key elements of the manufacturing process. In 1996, the Company completed development of two separate commercial scale oligonucleotide synthesizers, one in an internal program and one in a collaboration with Pharmacia Biotech, Inc. ("Pharmacia"). The synthesizer developed by Hybridon is specifically designed to produce advanced chemistry antisense oligonucleotides. In addition, the Company has implemented proprietary purification processes, which use water in place of chemical solvents, simplifying environmental compliance and permitting purification of kilogram batches of oligonucleotides. The advances made by the Company in oligonucleotide manufacturing technology have enabled the Company to reduce its direct oligonucleotide unit production costs by approximately 50% annually since 1991. Because antisense compounds targeted at different diseases can be manufactured with the same nucleotide building blocks and using the same manufacturing processes and equipment with minimal adjustments, the knowledge and experience that the Company obtains in the manufacture of each compound is substantially applicable to the manufacture of other oligonucleotide compounds for the treatment of other diseases and results in significant manufacturing efficiencies.

- Proprietary Analytical Tools and Processes. Hybridon has developed proprietary analytical tools and processes that enable the Company to analyze the chemical purity, base sequencing and composition of its oligonucleotides with greater speed and accuracy than existing analytical processes. In particular, the Company has developed proprietary laser induced fluorescence and physical sequencing mass spectrometry which enables the Company to directly sequence advanced chemistry oligonucleotides which is not possible using more traditional enzymatic and chemical methods. The Company uses the information that it obtains with its analytical tools and processes to improve production quality control, to comply with regulatory requirements and to monitor the pharmacokinetic behavior of its oligonucleotide compounds in preclinical studies and clinical trials.

Hybridon seeks to establish a comprehensive proprietary position through a "layered" patent strategy covering the Company's families of oligonucleotide chemistries, the antisense sequences of the Company's oligonucleotide compounds and the chemical compositions of these oligonucleotide compounds. The Company believes that this approach may provide it with at least three independent levels of protection. Hybridon also seeks to protect its proprietary analytical and manufacturing processes. Hybridon owns or exclusively licenses 23 issued U.S. patents, six issued European patents, 31 allowed U.S. patent applications, eight allowed European patent applications and 168 other U.S. patent applications. One of the issued U.S. patents and one of the issued European patents broadly claim antisense oligonucleotides targeted at HIV, four of the issued U.S. patents and 63 of the U.S. patent applications relate to antisense oligonucleotides targeted at genes which are implicated in diseases such as cancer and viral and bacterial infections, seven of the issued U.S. patents and 38 of the U.S. patent applications relate to the Company's medicinal chemistries, including one issued U.S. patent that broadly claims methods of orally-administering advanced chemistry oligonucleotides, and six of the issued U.S. patents and 47 of the U.S. patent applications relate to oligonucleotide production.

TECHNOLOGY OVERVIEW

Introduction

Proteins play a central role in virtually every aspect of human

metabolism. Almost all human diseases are the result of inappropriate protein production or performance. Traditional drugs are designed to interact with protein molecules that support or create diseases. Antisense drugs work at the genetic level to interrupt the process by which disease-causing proteins are produced.

The information necessary to produce a specific protein is encoded in a specific gene. The information required to produce all human proteins is contained in the human genome and its collection of more than 100,000 genes. Each gene is made up of DNA, which is a duplex of entwined strands -- a "double helix." In each duplex, the building blocks of DNA, called nucleotides, are bound or "paired" with complementary nucleotides on the other strand. The precise sequence of a nucleotide chain that is the blueprint for the information that is used during protein production is called the "sense" sequence. The sequence of a nucleotide chain that is precisely complementary to a given sense sequence is called its "antisense" sequence.

Protein synthesis or expression typically involves a two-phase process. First, the information contained in the gene is transcribed from the sense strand of DNA into one or more molecules of messenger RNA. Second, the information encoded in the messenger RNA is translated into the sequence of amino acids that comprise the protein. The information contained in a single gene is often repeatedly transcribed into multiple copies of messenger RNA, which in turn are repeatedly translated, giving rise to multiple copies of the same protein.

Conventional Drugs

Most drugs are chemicals designed to induce or inhibit the function of a target molecule, typically a protein, with as few unwanted side effects as possible. However, conventional drugs are not available for the treatment of many diseases because of their relatively low level of selectivity. The selectivity of conventional drugs is usually determined by only a few, generally two or three, points of interaction at the binding site of the target molecule. Frequently, sites on other non-target molecules resemble the target binding site sufficiently to permit the conventional drug to bind to some degree. This lack of selectivity may result in decreased efficacy, unwanted side effects or a need to administer the drug in less than optimal dosages due to toxicity concerns. In addition, the development of conventional drugs is generally time consuming and expensive, as thousands of compounds must be synthesized to find one with the right efficacy and side effect profile.

Gene Expression Modulation

In contrast to conventional drugs, which usually interact with disease-associated proteins after they have been produced, gene expression modulation technology is intended to regulate the production of disease-associated proteins, thus targeting an earlier biochemical process. Advances in genomic science have identified many targets for gene expression modulation products. Once a gene that codes for a disease-associated protein is identified, an oligonucleotide based on the complementary sequence for the selected site can be synthesized and its pharmaceutical properties optimized by chemical modification. These chemically-modified oligonucleotides may be composed of DNA, RNA or a combination of the two.

Chemically-modified oligonucleotides can be designed to attack a disease at the genetic level by binding to messenger RNA or DNA to prevent production of disease-associated proteins. Binding to messenger RNA generally is used in the "antisense" and "ribozyme" approaches to gene expression modulation, while

binding to the DNA generally is used in the "triplex" approach to gene expression modulation.

In the antisense approach to gene expression modulation, chemically-modified oligonucleotides, which consist of the antisense sequence to a selected region on a target messenger RNA, are used to inhibit the synthesis of a particular protein. Because the sequence of nucleic acid bases of a chemically-modified antisense oligonucleotide is complementary to its target sequence on a messenger RNA, the antisense oligonucleotide forms a large number of bonds at the target site, typically in excess of 35, practically assuring that the oligonucleotide will hybridize (bind) tightly to the selected type of messenger RNA. Since a single messenger RNA may be translated repeatedly into a protein, a single chemically-modified antisense oligonucleotide may inhibit the synthesis of many copies of a protein. Moreover, in vitro tests have shown that certain chemically-modified antisense oligonucleotides form complexes with their target messenger RNAs. These complexes activate RNase H, a cellular enzyme, in a manner that destroys the messenger RNA to which the oligonucleotide is bound, without destroying the oligonucleotide itself, thus freeing the oligonucleotide to bind with another identical messenger RNA.

Ribozymes are RNA molecules that have the ability to cleave other RNA molecules. Ribozymes contain a catalytic core along with an oligonucleotide sequence complementary to a sequence on the target messenger RNA. As with enzymes, ribozymes function catalytically when cleaving other RNA molecules and thus are not themselves permanently affected by the process. As with antisense oligonucleotides, ribozymes bind selectively with target RNAs. Therefore, a single ribozyme molecule will cleave a specific target messenger RNA molecule with which the ribozyme becomes bound. That same ribozyme will then be free to bind with another identical messenger RNA molecule and repeat the cleaving function. Because of their catalytic activity, ribozymes may have advantages over antisense oligonucleotides in situations in which cellular RNase H is not abundant or

cannot be activated. Ribozymes have had limited utility as potential drugs because of their relatively large size, which increases the expense of synthesizing these molecules; the difficulty in increasing their stability through chemical modification; and the limited nature of the catalytic activity of synthetic ribozymes, particularly at magnesium levels present in human cells.

The triplex approach involves the interaction of oligonucleotides directly with the appropriate region of the double-stranded DNA comprising the target gene, thus resulting in a triplex structure and physically interfering with the transcription of DNA into messenger RNA. The triplex approach typically does not involve the destruction of the region of DNA to which the oligonucleotides are bound, in contrast with the effects of antisense oligonucleotides and ribozymes on messenger RNA. Constraining factors to the triplex approach to date have been the difficulty of obtaining access for oligonucleotides to the DNA, the relative weakness of the bonding of the oligonucleotides with the DNA and concerns over compounds that interact directly with the DNA genetic information.

HYBRIDON TECHNOLOGY

Antisense

Hybridon has developed an integrated antisense technology platform based on proprietary medicinal chemistries, analytical chemistry and manufacturing technology. The development of Hybridon's antisense technology has been directed by Dr. Sudhir Agrawal, the Company's Chief Scientific Officer, along with Drs. John Goodchild and Jin-Yan Tang, two of the Company's principal scientists, and

builds on the pioneering work in the antisense field begun in the 1970s by Dr. Paul C. Zamecnik, a founder and director of the Company and Chairman of its Scientific Advisory Board, at the Massachusetts General Hospital ("MGH") and continued by Dr. Zamecnik at the Worcester Foundation for Biomedical Research, Inc. (the "Worcester Foundation").

Medicinal Chemistries. Hybridon's scientists have designed and synthesized over 20 proprietary families of synthetic antisense oligonucleotide chemistries. The Company believes that antisense compounds based on these chemistries may demonstrate a range of favorable pharmaceutical attributes, including: reduced side effects, increased duration of action, increased potency and susceptibility to lower dosing, less frequent dosing, controlled release formulation and alternative routes of administration, including oral administration. Hybridon designed its first generation phosphorothioate oligonucleotides to increase their resistance to enzymatic degradation and their biological activity and to act catalytically by triggering RNase H. GEM 91 is such a phosphorothioate-modified oligonucleotide. Hybridon has used the insights gained by it in the development and ongoing human clinical trials of GEM 91 in the design of its more advanced oligonucleotide chemistries.

In addition to developing advanced oligonucleotide chemistries, Hybridon is developing new formulations of its antisense oligonucleotides to optimize their pharmaceutical properties. Data from in vivo studies in a rat model of Hybridon's antisense oligonucleotide formulated with the chemical cyclodextrin suggest that such compounds would exhibit increased cellular uptake, lower immunostimulatory effects, a generally enhanced safety profile and improved stability. In in vitro tests, a formulation of Hybridon's antisense oligonucleotide with protamine also demonstrated reduced immunostimulatory effects.

Hybridon has also developed substantial expertise in the selection of molecular targets for its antisense compounds. The Company's studies of DNA and messenger RNA from a large number of viruses, other infectious organisms and cancer cells have yielded an improved understanding by Company scientists of RNA structure and the importance of particular RNA sequences to the processing of messenger RNA and the translation of proteins. This knowledge enhances the Company's ability to select attractive target sites and thereby increases the efficiency of Hybridon's

drug development programs. The Company has developed in vitro tests which can select preferred oligonucleotide binding sequences on messenger RNA. The Company also employs conventional computer-based rational drug design to select attractive binding sequences.

Manufacturing Technology. The Company's expertise in the structure, design and analysis of chemically-modified oligonucleotides has served as the foundation of its manufacturing technology and know-how. The Company has developed proprietary technology to increase the purity of oligonucleotide products, enhance the efficiency of the production process and increase the scale of production. In 1996, the Company completed development of two separate commercial scale oligonucleotide synthesizers, one in an internal program and one in a collaboration with Pharmacia. The synthesizer developed by Hybridon is specifically designed to produce advanced chemistry antisense oligonucleotides. In addition, the Company has implemented proprietary purification processes, which use water in place of chemical solvents, simplifying environmental compliance and permitting purification of kilogram batches of oligonucleotides. The Company has also developed proprietary chemical synthesis processes and novel reagents used in the synthesis process, which the Company believes may further decrease the cost of production of its modified oligonucleotides.

Proprietary Analytical Tools and Processes. The Company has established proprietary analytical tools and processes that enable it to analyze oligonucleotide compounds with greater speed and accuracy when compared to traditional methods. Hybridon has developed a novel method of determining antisense purity that is sensitive to a single DNA base difference; this method is significantly more accurate than traditional chromatography methods. The Company is also able to sequence and identify short strands of DNA at the subparts-per-billion level, allowing Hybridon's scientists to trace the compound through the metabolic pathway and assess the compound's bioavailability. The Company uses the information that it obtains with its proprietary analytical tools and processes to improve production quality control, to comply with regulatory requirements and to monitor the pharmacokinetic behavior of its oligonucleotide compounds in preclinical studies and clinical trials.

Ribozyme

Hybridon believes that the ribozyme approach of gene expression modulation is complementary to the Company's antisense technology because the Company's oligonucleotide drug development, production and analytic and advanced medicinal chemistry technology are all directly applicable to this approach.

Hybridon's ribozyme research group is working on the development of ribozymes which may exhibit favorable pharmaceutical attributes, such as improved catalytic activity and greater resistance to degradation by cellular enzymes, the development of oligonucleotides with ribonuclease-like activity that do not contain enzymatic RNA and the development of shorter length ribozymes which are easier and less expensive to synthesize. The Company has developed a method of using ribozymes in the presence of antisense oligonucleotides that bind to a site on the target messenger RNA immediately adjacent to the site of ribozyme binding. These antisense oligonucleotides act as facilitators for the binding of ribozymes and, in in vitro tests, have allowed the use of shorter length ribozymes. Also in in vitro tests, the Company has shown that the presence of antisense oligonucleotide facilitators increases the catalytic activity of ribozymes, thereby potentially increasing the potency of these compounds, and promotes ribozyme activity at concentrations of magnesium naturally occurring in human cells. Synthetic ribozymes generally cleave poorly or not at all in such low levels of magnesium. Another ribozyme approach under research by the Company involves the combination of oligonucleotides that do not activate RNase H with ribozymes that act in a catalytic manner, thereby offering the prospect of lower dosing of the oligonucleotide. The Company is engaged in additional studies to improve the pharmaceutical properties of ribozymes against various disease targets.

HYBRIDON DRUG DEVELOPMENT AND DISCOVERY PROGRAMS

Hybridon is focusing its development efforts on products for the treatment of diseases for which the gene encoding the target protein is well characterized; that afflict a substantial number of people; for which there are significant unmet clinical needs, particularly diseases for which there is no current drug therapy or for which available therapies have unacceptable side effects; and for which expedited regulatory review processes reasonably may be expected. Based on these criteria, Hybridon is directing its drug development efforts at the treatment of HIV-1 infection and AIDS, other viral and infectious diseases, cancers and certain metabolic disorders.

The following table summarizes Hybridon's principal product development and discovery programs. All of these programs involve the discovery and development of chemically-modified oligonucleotides using the antisense approach

to gene expression modulation. This table is qualified in its entirety by reference to the more detailed descriptions elsewhere in this Annual Report on Form 10-K.

TARGET	Primary Therapeutic Indication(s)	STATUS(1)
HIV-1 AND AIDS		
HIV-1	HIV-1 Infection and AIDS	GEM 91 - Phase II Clinical Trials
	HIV-1 Infection and AIDS	GEM 92 - Preclinical (Intravenous and Oral Formulations)
VIRAL AND INFECTIOUS DISEASES		
Cytomegalovirus	CMV Retinitis	GEM 132 for Intravitreal Injection - Phase I/II Clinical Trials
	CMV (Systemic)	GEM 132 for Systemic Injection - Phase II Clinical Trials
Human Papilloma Virus	Genital Warts; Cancer	Preclinical (2)
Hepatitis C Virus	Hepatitis; Liver Cancer	Lead Compounds (2)
Hepatitis B Virus	Hepatitis; Liver Cancer	Research Compounds
CANCERS		
Protein Kinase A	Cancer	GEM 231 - Preclinical (Intravenous and Oral Formulations)
Vascular Endothelial Growth Factor	Cancer Angiogenesis	GEM 220 - Preclinical
Multiple Drug Resistance	Cancer Chemotherapy	Preclinical
DNA Methyltransferase	Cancer	Lead Compounds (3)
METABOLIC DISORDERS		
Vascular Endothelial Growth Factor	Retinopathies	Preclinical
	Psoriasis	Preclinical
Amyloid Precursor Protein	Alzheimer's Disease	Lead Compounds
ApoE-4	Alzheimer's Disease	Lead Compounds

(1) Preclinical: Compounds are undergoing additional testing and alternative chemistries are being evaluated in biological assays and/or appropriate animal models in order to assess efficacy, toxicology and pharmacokinetics and to select particular chemistries with optimal pharmaceutical attributes. If these procedures are completed satisfactorily and other scientific and financial criteria are met, the Company may initiate investigational new drug ("IND")- enabling Good Laboratory Practices ("GLP") studies and begin preparation of an IND application.

Lead Compounds: One or more antisense compounds have demonstrated biological activity for a particular gene target in a specific and relevant biological assay.

Research Compounds: Appropriate target gene(s) and sequence(s) are being determined; antisense compounds are being synthesized and screened for biological activity.

(2) Being developed as part of collaboration with Roche. See "Item 1. Business -- Corporate Collaborations -- F. Hoffmann-La Roche Ltd."

(3) Technology relating to target has been licensed to and is being developed by Methylgene Inc., a Canadian company co-founded by the Company and in which the Company owns a minority interest ("Methylgene"). See "Item 1. Business -- Financial Collaborations -- Methylgene Inc."

HIV-1 and AIDS

AIDS is caused by infection with HIV and leads to severe, life-threatening impairment of the immune system. HIV causes immunosuppression by attacking and destroying T-cells, which coordinate much of the network of normal immune responses. HIV infection usually leads to AIDS, although progression to symptomatic disease may take many years. The process of HIV replication involves the integration of a DNA copy of the viral RNA into the human genome, the transcription of the DNA copy into messenger RNA ("reverse transcription") and the synthesis of viral proteins and copies of viral RNA for packaging into new virus particles that may infect other cells.

As of June 30, 1996, approximately 548,100 cases of AIDS had been reported to the U.S. Centers for Disease Control and Prevention, and the current population of surviving AIDS patients in the U.S. was estimated to be approximately 200,000. As of June 30, 1996, AIDS was the leading cause of death in the U.S. for men between the ages of 25 and 44 and the third leading cause of death in the U.S. for women between the ages of 25 and 44. The U.S. Public Health Service estimates that more than 1,000,000 other people in the U.S. are infected with HIV. As of June 30, 1996, the World Health Organization (the "WHO") reported that approximately 1,394,000 AIDS cases had been reported worldwide, but it estimated that the actual total number of cases was over 7,700,000. The WHO also estimated that, as of June 30, 1996, approximately 21,800,000 individuals were infected with HIV/AIDS worldwide.

Therapies that have received U.S. Food and Drug Administration ("FDA") marketing approval for the treatment of HIV infection and AIDS include two classes of products: reverse transcriptase inhibitors and inhibitors of HIV-1 protease, known as protease inhibitors. Both types of drugs are inhibitors of viral enzymes and have shown efficacy in reducing the concentration of viral RNA (HIV) in the blood and in prolonging the asymptomatic periods in HIV-positive individuals, especially when administered in combination. However, not all patients have benefitted from these drugs, when used in combination or otherwise, and problems remain with respect to patient compliance regimens and certain toxic side effects. In addition, it is not known to what extent HIV will develop resistance over time to these drugs.

GEM 91. The Company is enrolling patients for a Phase II clinical trial of GEM 91 in the U.S. This trial will involve the administration of GEM 91 in an open label trial in which GEM 91 will be administered for a two-week period to up to 24 HIV-positive patients with characteristics of advanced HIV disease. This trial is designed to confirm the preliminary findings from the Company's Phase Ib/II clinical trials of GEM 91 in the U.S. in which a decrease was observed in the quantities of cell-associated HIV-1 in circulating blood cells of patients with characteristics of advanced HIV disease.

In 1993 and 1994, the Company conducted Phase Ia clinical trials of GEM 91 in the U.S. and in France in conjunction with the Agence Nationale de Recherches sur le SIDA (the "ANRS"). The Company believes that these trials were the first human clinical trials involving intravenous or other systemic administration of

an antisense oligonucleotide for the treatment of a viral disease. In these trials, the Company administered ascending single doses of up to 3.5 mg/kg of GEM 91 to 72 HIV-

positive patients, administered by two-hour intravenous infusions. The Company also conducted additional Phase Ia clinical trials of GEM 91 in Europe involving 27 normal volunteers to study the pharmacokinetic interaction of a combined treatment of GEM 91 and AZT and to investigate the absolute bioavailability of subcutaneously and intramuscularly administered GEM 91. GEM 91 was well tolerated by all patients in the Phase Ia clinical trials without dose-limiting toxicity or side effects.

In 1995, the Company initiated Phase Ib/II clinical trials of GEM 91 in the U.S. and in France in conjunction with the ANRS. These trials are designed to assess the safety and pharmacokinetics of repeated doses of GEM 91 and to provide preliminary data on the drug's antiviral action in reducing viral load. In the U.S. trials, daily doses of up to 4.4 mg/kg/day of GEM 91 have been administered by continuous intravenous infusion for periods of between eight and 14 days. In the French trials, GEM 91 was administered by intermittent two hour intravenous infusions for periods of up to 27 days at daily doses of up to 3.0 mg/kg/day. Through February 28, 1997, these trials have involved 176 HIV-positive patients. GEM 91 has been well tolerated by all patients in the Phase Ib/II clinical trials without dose-limiting toxicity or side effects. In addition, unblinded analysis of the on-going Phase Ib/II trials showed a significant difference between treated and untreated patients in cellular viremia (e.g. the quantities of infectious virus in circulating blood cells) with a more pronounced difference in patients with characteristics of advanced HIV. The Company is continuing these Phase Ib/II clinical trials in the U.S.

GEM 91 is a phosphorothioate antisense oligonucleotide comprised of 25 nucleotides. In certain specially-designed cell culture tests, GEM 91 demonstrated inhibition of HIV-1 replication at multiple stages in the virus replication cycle: (i) by binding with surface proteins and inhibiting the absorption of HIV into cells, (ii) by interfering with the reverse transcription of viral RNA into DNA, and (iii) by binding with the gag-messenger RNA of HIV-1, which is common to different viral strains (referred to as a "conserved region") and which codes for a protein essential to viral replication. The multiple mechanisms of action exhibited by GEM 91 in these in vitro tests may enhance the likelihood that GEM 91 may delay the emergence of viral resistance to its activity.

GEM 91 has demonstrated significant inhibition of the replication of HIV-1 in various cell culture tests of AZT-resistant and other primary human isolates. In a cell culture model that was monitored for 187 days, GEM 91 inhibited HIV-1 replication without any significant resistance being observed. In a parallel model that was monitored for 174 days, AZT inhibition of HIV-1 replication was accompanied by the development of significant AZT resistance in the virus population. In similar tests of protease inhibitors, significant resistance also developed in the virus population. In tissue culture assays, GEM 91 suppressed HIV-1 induced cytopathic effects on CD4 cells, thereby maintaining CD4 cell population in a dose-dependent fashion. There can be no assurance that preclinical tests will be predictive of the effect of GEM 91 in humans. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Early Stage of Development; Technological Uncertainty."

GEM 92. Using the insights gained in the development and ongoing clinical trials of GEM 91 and employing chemistry advances developed by the Company, the Company is developing GEM 92 for the treatment of HIV-1 infection and AIDS. GEM 92 is based on one of the Company's more advanced oligonucleotide chemistries. Because GEM 92 also targets the gag messenger RNA, the Company believes that the

various attributes of GEM 91, including the multiple mechanisms of action, may be equally applicable to GEM 92. GEM 92 has demonstrated significant inhibition of the replication of HIV-1 in various human cell culture systems. In addition, based on in vitro tests, the Company believes that GEM 92 may demonstrate increased stability in comparison with GEM 91 and, as a result, longer duration of action, thereby potentially permitting lower and less frequent dosing. Because preclinical tests have demonstrated that other molecules with similar chemical properties have the potential for oral administration, the Company plans to systematically evaluate GEM 92 for potential oral use.

Other Viral and Infectious Diseases

Cytomegalovirus. CMV is widespread in the human population as a persistent subclinical infection. Approximately 70,000 to 150,000 cases occur each year in the U.S., of which approximately one-half involve congenitally infected infants. Infection by CMV is manifested clinically in certain individuals, particularly in newborns, transplant recipients, cancer patients and AIDS patients. In approximately 40% of all AIDS patients, clinical CMV may develop as a progressive destruction of the retina (retinitis), resulting in blindness. In transplant recipients, CMV may develop as a variety of diseases, including pneumonitis.

The Company is conducting two clinical trials of GEM 132, its advanced chemistry compound for the treatment of CMV: a Phase I/II clinical trial of GEM 132 for the treatment of CMV retinitis in AIDS patients by intravitreal injection in the eye (the "IVT Formulation") and a Phase II clinical trial of another formulation of GEM 132 for the treatment of systemic CMV by intravenous administration (the "Systemic Formulation"). The Company's Phase I/II clinical trials of the IVT Formulation are being conducted in the U.S. and France and will involve the injection of the IVT Formulation into the vitreous humor of the affected eye in up to 29 HIV-positive patients with CMV retinitis. These trials are designed to assess the safety of GEM 132 and to provide preliminary data as to the ability of GEM 132 to inhibit the progression of CMV retinitis in individuals with AIDS.

The Company's Phase II clinical trials of the Systemic Formulation are currently being conducted in France. The Company recently submitted an IND covering the Systemic Formulation with the FDA and, subject to such IND becoming effective, expects trials to begin in the U.S. in the second quarter of 1997. These clinical trials will involve the intravenous administration of the Systemic Formulation to up to 30 HIV-positive patients with CMV infections and are designed to study the safety and pharmacokinetics of the Systemic Formulation and the usefulness of several currently available tests as surrogate markers to evaluate the efficacy of anti-CMV therapies.

In October 1996, the Company completed a Phase I safety and pharmacokinetic trial of the Systemic Formulation in healthy, adult male volunteers in the United Kingdom. In this trial, subjects received doses of the Systemic Formulation ranging from 0.125 to 0.5 mg/kg in a single two hour intravenous infusion. Results of this study provided data on safety, drug distribution and metabolism. GEM 132 was well-tolerated by the subjects without dose-limiting toxicity or side effects during administration and for the subsequent 14-day follow-up period.

GEM 132 has demonstrated significant inhibition of the replication of human cytomegalovirus in tissue culture assays. GEM 132 has demonstrated activity in cell culture against both clinical isolates and viruses which have become resistant to current therapies, such as ganciclovir. In addition, in cell

culture studies, GEM 132 has demonstrated significantly more potent anti-viral activity than the two existing therapies against which it has been tested, ganciclovir and foscarnet.

Human Papilloma Viruses. Human papilloma viruses are associated with a variety of warts, including benign genital warts which, if untreated, can lead to cervical cancer. Human papilloma viruses are found in more than 24,000,000 Americans, with an estimated 500,000 to 1,000,000 new cases each year. Genital warts currently are among the most prevalent sexually transmitted diseases in the U.S. Pursuant to its collaboration with Roche, Hybridon has identified through joint research with Roche specific sequences on the messenger RNA of the papilloma virus as targets for chemically- modified antisense oligonucleotides and has synthesized chemically-modified antisense oligonucleotides that inhibit human papilloma virus gene expression in tissue culture assays. These compounds also have been shown in an animal model to be active in preventing virus damage to tissues. Hybridon has achieved the first contractually specified development milestone, designation of a lead compound, in the human papilloma virus program under its collaboration with Roche.

Hepatitis C Virus. There are approximately 3,500,000 people in the U.S. carrying the hepatitis C virus, and approximately 150,000 individuals in the U.S. become infected with hepatitis C each year. Approximately 80% of those who contract the virus each year develop chronic hepatitis C infections and approximately 30,000 cases each year ultimately result in cirrhosis of the liver. Chronic infection due to hepatitis C is a significant disease in Japan and other Pacific Rim countries that has been linked to the development of primary liver cancer. Pursuant to its collaboration with Roche, Hybridon has identified through joint research with Roche specific sequences on the messenger RNA as targets for chemically modified antisense oligonucleotides and has synthesized chemically-modified antisense oligonucleotides that inhibit hepatitis C viral gene expression in in vitro and tissue culture assays. Hybridon has achieved the first contractually specified development milestone, designation of a lead compound, in the hepatitis C program under its collaboration with Roche.

Hepatitis B Virus. Hepatitis B is a major health problem throughout the world, with endemic infection in some less developed countries. Approximately 1,200,000 individuals in the U.S. carry the hepatitis B virus. There are an estimated 200,000 to 300,000 new hepatitis B infections in the U.S. each year. Hepatitis B infections can lead to liver cirrhosis and cancer of the liver. Pursuant to its collaboration with Roche, Hybridon identified through joint research with Roche specific sequences on the messenger RNA as targets for chemically-modified antisense oligonucleotides and synthesized chemically-modified antisense oligonucleotides that inhibit the expression of hepatitis B virus in cell cultures. Although Roche has since determined not to pursue this program, the Company is continuing its development efforts. All rights relating to the Roche-sponsored research with respect to hepatitis B have reverted to the Company.

Cancer

Approximately 1,380,000 new cancer cases are reported in the U.S. annually. Cancers of all types result in approximately 560,000 deaths in the U.S. each year, making cancer the second leading cause of death in the U.S. In addition to surgery and radiotherapy, there are nearly 50 FDA-approved drug therapies for the treatment of a variety of cancers, although many of these therapies suffer from severe adverse side effects.

Protein Kinase A. Protein Kinase A ("PKA") is a protein that has been

shown to be expressed in human cancer cell lines and in primary tumors after cells have been transformed with various oncogenes or after stimulation of cell growth with cell growth stimulating factors. Based on cell culture studies, the Company believes that overexpression of PKA may be associated with colon, breast, ovarian and lung cancer. Hybridon has identified specific sequences on the PKA gene as targets for chemically-modified antisense oligonucleotides and has synthesized an advanced chemically-modified antisense compound, GEM 231, that has demonstrated inhibition of the expression of PKA and tumor growth in animal model studies. In these studies, repeated daily doses of Hybridon's oligonucleotide compound administered either intraperitoneally or orally resulted in reduction of PKA, with suppression of tumor growth for seven days. The Company plans to commence clinical trials of GEM 231 in the second half of 1997.

Vascular Endothelial Growth Factor -- Cancer Angiogenesis. Vascular Endothelial Growth Factor ("VEGF") is a growth factor that stimulates angiogenesis, the process of new blood vessel formation. Angiogenesis plays a major role in wound healing and organ regeneration and also is involved in certain pathological processes, such as tumor growth and metastasis. VEGF has been shown to be overexpressed in developing tumors and is believed to be a key factor in providing new blood supply to feed developing tumors. Hybridon has identified specific sequences on the VEGF messenger RNA as targets for chemically-modified antisense oligonucleotides and has synthesized an advanced chemically-modified antisense oligonucleotide, GEM 220, that has inhibited the expression of the VEGF gene in in vitro and tissue culture assays. In an animal model for solid tumor growth, this compound

demonstrated tumor growth suppression. The Company plans to commence clinical trials of GEM 220 in the second half of 1997.

Multiple Drug Resistance. Approximately 500,000 (or one-half) of the new cancer cases reported each year are not curable by any conventional treatment. In approximately one-half of these incurable cases, Multiple Drug Resistance ("MDR-1") gene expression is thought to play a predominant role in the cancers' resistance to chemotherapy. Hybridon has identified specific sequences on the messenger RNA as targets for chemically-modified antisense oligonucleotides and has synthesized chemically- modified antisense oligonucleotides that inhibit the expression of the MDR-1 gene in drug-resistant human cancer cells in tissue culture assays and increase their sensitivity to anti-cancer drugs in such assays. These compounds also have decreased MDR-1 expression in human tumors in a mouse model and have shown activity in a murine leukemia model. In addition, in in vitro and in vivo tests, these compounds sensitized formerly resistant cancer cells to chemotherapeutic agents.

DNA Methyltransferase. DNA methyltransferase is a regulatory protein that has been implicated in the processes of cell growth and differentiation and has been shown to be overexpressed in some tumors, such as small cell lung cancer, colon cancer and breast cancer. Hybridon has identified specific sequences on the messenger RNA as targets for chemically-modified antisense oligonucleotides and has synthesized chemically-modified antisense oligonucleotides that alter DNA methylation of cultured human cancer cells and inhibit the ability of such cells to grow in cell culture and their ability to form tumors in mice. The Company has licensed the technology relating to the development of this compound to Methylgene, which is currently developing this technology. See "Item 1. Business -- Financial Collaborations -- Methylgene Inc."

Metabolic Disorders

Vascular Endothelial Growth Factor -- Retinopathies. Overexpression of

VEGF has been implicated in four major causes of blindness: late stage, age-related macular degeneration, which currently afflicts approximately 500,000 people in the U.S.; proliferative diabetic retinopathy, the major cause of blindness in diabetics which currently affects approximately 250,000 people in the U.S.; central retinal vein occlusion, which currently afflicts approximately 200,000 people in the U.S.; and retinopathy of prematurity, which affects approximately 10,000 premature newborns annually in the U.S. Hybridon has identified specific sequences on the VEGF messenger RNA as targets for chemically-modified antisense oligonucleotides and is synthesizing chemically-modified antisense oligonucleotides designed to inhibit the expression of the VEGF gene in retinal cells. These oligonucleotides have been shown in an animal model of retinopathy to inhibit vascular proliferation and prevent aberrant angiogenesis in the retinas of mice in a model for retinopathy of prematurity. Hybridon's antisense oligonucleotides have also been shown to inhibit neovascularization in a primate animal model of neovascularization.

Vascular Endothelial Growth Factor--Psoriasis. VEGF, in association with its role in angiogenesis, has recently been implicated in psoriasis, which currently afflicts more than 6,000,000 people in the U.S. with between 150,000 and 260,000 new cases in the U.S. each year. Hybridon has identified specific sequences on the VEGF messenger RNA as targets for chemically-modified antisense oligonucleotides and has synthesized chemically-modified antisense oligonucleotides that have inhibited the expression of the VEGF gene in in vitro and tissue culture assays. The Company is currently investigating optimal forms of topical delivery to the basal layers of the epidermis, where VEGF has been found to be overexpressed in psoriasis.

Amyloid Precursor Protein. Alzheimer's disease is a neurodegenerative disease which is the most common cause of dementia in the elderly. It is estimated to affect approximately 4,000,000 individuals in the U.S. The presence of amyloid precursor protein ("APP") in the brain at abnormal sites and in abnormal amounts has been reported to be associated with Alzheimer's disease. Hybridon has identified specific sequences on the messenger RNA as targets for chemically-modified antisense

oligonucleotides and has synthesized chemically-modified antisense oligonucleotides that inhibit APP production in tissue culture assays. In addition, the Company is continuing to conduct studies of APP regulation in rats.

ApoE-4. Apolipoprotein E4 ("ApoE-4") is a plasma protein involved in cholesterol transport and is associated with Alzheimer's disease. The two gene products from the APP and ApoE-4 locus appear to interact and provide a strategic site for therapeutic intervention in Alzheimer's disease. Hybridon and has identified specific sequences on the messenger RNA as targets for chemically- modified antisense oligonucleotides and is continuing to conduct preclinical studies of ApoE-4. The Company is a party to a collaboration with Medtronic involving the testing of a drug delivery device which could be used to deliver Hybridon's antisense oligonucleotides targeting Alzheimer's disease and other neurodegenerative diseases. See "Item 1. Business -- Corporate Collaborations -- Medtronic, Inc."

CORPORATE COLLABORATIONS

An important part of Hybridon's business strategy is to enter into research and development collaborations, licensing agreements or other strategic alliances with third parties, primarily biotechnology and pharmaceutical corporations, for the development and commercialization of certain products. As of the date hereof, the Company had entered into corporate collaborations with

Searle, Roche and Medtronic, all as summarized below. The Company intends to retain manufacturing rights for many of the products it may license pursuant to these collaborations.

G.D. Searle & Co.

In January 1996, the Company and Searle entered into a collaboration relating to research and development of therapeutic antisense compounds directed at up to eight molecular targets in the field of inflammation/immunomodulation (the "Searle Field").

Pursuant to the collaboration, the parties are conducting research and development relating to a compound directed at a molecular target in the Searle Field designated by Searle. In this project, Searle is funding certain research and development efforts by Hybridon, and each of Searle and Hybridon have committed certain of its own personnel to the collaboration. The initial phase of research and development activities relating to the initial target will be conducted through the earlier of (i) the achievement of certain product candidate milestones and (ii) 36 months after commencement of the collaboration, subject to early termination by Searle (although in any event Searle is required to pay 18 months of research and development funding). The parties may extend the initial collaboration by mutual agreement, including agreement as to additional research funding by Searle.

In addition, under the collaboration Searle has the right, at its option, to designate up to six additional molecular targets in the Searle Field (the "Additional Targets") for collaborative research and development with Hybridon on terms substantially consistent with the terms of the collaboration applicable to the initial molecular target. This right is exercisable by Searle with respect to each of the Additional Targets upon the payment by Searle of certain research payments (beyond the project specific payments relating to the particular Additional Target) and the purchase of additional Common Stock from the Company by Searle (at the then fair market value). The aggregate amount to be paid by Searle for such research payments and equity investment in order to designate each of the Additional Targets is $10,000,000 per Additional Target. In the event that Searle designates all of the Additional Targets, the aggregate amount to be paid by Searle for research payments will be $24,000,000 and the aggregate amount to be paid by Searle in equity investment will be $36,000,000. If Searle has not designated all of the Additional Targets by the time it advances the product candidate for the initial molecular target to certain stages of preclinical development, Searle will be required to purchase an additional $10,000,000 of Common Stock (at the then fair market value) on specified dates in order to maintain its right to designate any of the Additional Targets that it has not yet designated.

The payment for any such Common Stock will be creditable against the equity investment portion of the payments to be made by Searle with respect to the designation of any of the Additional Targets that Searle has not yet designated.

Searle also has the right, at its option, to designate a molecular target in the Searle Field to develop a therapeutic agent for cancer that acts through immunomodulation (the "Searle Cancer Target") for collaborative research and development with Hybridon on terms substantially consistent with the terms of the collaboration applicable to the initial molecular target. At the time of such designation, Searle will be required to make certain research payments to Hybridon and purchase additional Common Stock from the Company (at the then fair market value). The aggregate amount to be paid by Searle for such research payments and equity investment will range from $12,000,000 (comprised of $5,000,000 in research payments and $7,000,000 in equity investment) if the Searle Cancer Target is designated in 1997 to $26,000,000 (comprised of $21,000,000 in research payments and $5,000,000 in equity investment) if the

Searle Cancer Target is designated in 2000.

Searle has exclusive rights to commercialize any products resulting from the collaboration. If Searle determines, in its sole discretion, to commercialize a product, Searle will fund and perform preclinical tests and clinical trials of the product candidate and will be responsible for regulatory approvals for and marketing of the product. In certain instances and for specified periods of time, Hybridon has agreed to perform research and development work in the Searle Field exclusively with Searle. In addition, as to each product candidate, Hybridon will be entitled to milestone payments from Searle totalling up to an aggregate of $10,000,000 upon the achievement of certain development benchmarks. Hybridon also will be entitled to royalties from net sales of products resulting from the collaboration. Subject to satisfying certain conditions relating to its manufacturing capacities and capabilities, Hybridon will retain manufacturing rights, and Searle will be required to purchase its requirements of products from Hybridon on an exclusive basis at specified transfer prices. Upon a change in control of the Company, Searle would have the right to terminate Hybridon's manufacturing rights, although the royalty payable in respect of net sales would be increased in such event.

Under the collaboration, in the event that Searle designates (and makes the required payments and equity investments for) all of the Additional Targets or in certain other instances relating to Hybridon's failure to satisfy certain requirements relating to its manufacturing capacities and capabilities, Searle will have the right, exercisable in its sole discretion, to require Hybridon to form a joint venture with Searle for the development of products in the Searle Field (other than products relating to molecular targets that have already been designated by Searle) to which each party will contribute $50,000,000 in cash, although Hybridon's cash contribution would be reduced by the value of the technology and other rights contributed by Hybridon to the joint venture. Hybridon and Searle would each own 50% of the joint venture, although Searle's ownership interest in the joint venture would increase based upon a formula to up to a maximum of 75% if the joint venture is established in certain instances relating to Hybridon's failure to satisfy certain requirements relating to its manufacturing capacities and capabilities.

Under the collaboration, Searle also purchased 1,000,000 shares of Common Stock in the Company's initial public offering.

F. Hoffmann-La Roche Ltd.

In December 1992, the Company and Roche entered into a collaboration involving the application of Hybridon's antisense oligonucleotide chemistry to the development of compounds for the treatment of hepatitis B, hepatitis C and human papilloma virus. See "Item 1. Business -- Hybridon Drug Development and Discovery Programs." Under this collaboration, Roche funded research and development efforts relating to the collaboration and committed personnel of its own to the collaboration. In 1995, Roche notified the Company that it had selected an antisense

oligonucleotide directed at hepatitis C as a lead compound for further development and made a milestone payment to Hybridon in connection with such designation. In the third quarter of 1996, Roche notified the Company that it had selected an antisense oligonucleotide directed at human papilloma virus as a lead compound for further development, and in the fourth quarter of 1996, made a milestone payment to the Company in connection with such designation. At such time, Roche also notified the Company that Roche had elected not to continue the hepatitis B program under the research and development collaboration. As a result, in light of the selection by Roche of lead compounds directed at hepatitis C and human papilloma virus for further development and its determination to discontinue the hepatitis B program, Roche notified the Company

that Roche was exercising its option to terminate the research phase of the collaboration as of March 31, 1997. The Company and Roche are engaged in ongoing discussions as to the manner in which they will collaborate in connection with the further development of the two antisense oligonucleotides that have been selected by Roche as lead compounds. All rights relating to the hepatitis B program have reverted to the Company.

The Company has licensed to Roche any products resulting from the collaboration on a royalty-bearing, worldwide exclusive basis. Subject to compliance with certain production cost requirements, Roche is required to purchase from Hybridon, and Hybridon is required to supply to Roche, Roche's requirements of products at specified transfer prices.

As part of this collaboration, Roche purchased 551,724 shares of the Company's Series E Convertible Preferred Stock and 200,000 shares of the Company's Series F Convertible Preferred Stock, which shares were automatically converted into an aggregate of 818,390 shares of Common Stock upon the Company's initial public offering. In addition, the Company issued Roche a five-year (subject to earlier expiration in certain circumstances) warrant to purchase 551,724 shares of Common Stock, which has a current exercise price of $17.97 per share.

Medtronic, Inc.

In May 1994, the Company and Medtronic entered into a collaboration involving the testing of a drug delivery device for use in delivering Hybridon's antisense oligonucleotides for the treatment of Alzheimer's disease. See "Item 1. Business -- Hybridon Drug Development and Discovery Programs -- Metabolic Disorders -- Amyloid Precursor Protein and Beta-amyloid Protein." Hybridon will be responsible for the development of, and hold all rights to, any drug developed pursuant to this collaboration, and Medtronic will be responsible for the development of, and hold all rights to, any delivery system developed pursuant to this collaboration. The parties may extend this collaboration by mutual agreement to other neurodegenerative disease targets. The research and development to be conducted is determined and supervised by a committee comprised of an equal number of designees of the Company and Medtronic.

As part of the collaboration, Medtronic purchased 400,000 shares of the Company's Series F Convertible Preferred Stock and 125,000 preferred stock units of the Company (each unit consisting of one share of Series G Convertible Preferred Stock and one warrant to purchase one-half of one share of the Company's Common Stock). Upon the closing of the Company's initial public offering, the shares of Series F Convertible Preferred Stock and Series G Convertible Preferred Stock purchased by Medtronic automatically converted into an aggregate of 658,333 shares of the Company's Common Stock. In addition, the Company issued to Medtronic a warrant expiring on May 10, 1997 to purchase 53,333 shares of the Company's Common Stock at an exercise price equal to $7.50 per share (subject to increase under certain circumstances).

FINANCIAL COLLABORATIONS

In order to maintain financial flexibility, Hybridon considers innovative arrangements to finance certain applications of its GEM technology, particularly applications that it would not develop in the near term without external funding. The Company has entered into one such arrangement and has executed a letter of intent with respect to a second. These arrangements are summarized below.

Methylgene Inc.

The Company and certain Canadian institutional investors have formed a Quebec company, Methylgene, to develop and market (i) antisense compounds to inhibit DNA methyltransferase for the treatment of cancers, (ii) other methods of inhibiting DNA methyltransferase for the treatment of any indications and (iii) antisense compounds to inhibit a second molecular target other than DNA methyltransferase for the treatment of cancers, to be agreed upon by Hybridon and Methylgene (such three product areas being referred to herein as the "Methylgene Fields").

Hybridon acquired a 49% minority interest in Methylgene for approximately CDN$1,000,000, and the Canadian investors acquired a majority interest in Methylgene for a total of approximately CDN$7,500,000. It is anticipated that Methylgene will issue stock and stock options to certain key employees of and consultants to Methylgene, including certain directors and officers of the Company.

The Canadian investors have the right to exchange all (but not less than all) of their shares of stock in Methylgene for shares of Common Stock of Hybridon on the basis of 7.5 Methylgene shares (for which they paid approximately US $11.25) for one share of Hybridon Common Stock (subject to adjustment for stock splits, stock dividends and the like). This option is exercisable only during a 90- day period commencing on the earlier of the date five years after the closing of the Canadian investors' investment in Methylgene or the date on which Methylgene ceases operations, and terminates sooner if Methylgene satisfies certain conditions.

Hybridon has granted to Methylgene exclusive worldwide licenses and sublicenses in respect of certain technology relating to the Methylgene Fields. In addition, Hybridon and Methylgene have entered into a supply agreement pursuant to which Methylgene is obligated to purchase from Hybridon all required formulated bulk oligonucleotides at specified transfer prices.

It is anticipated that Methylgene will qualify to receive certain Canadian tax benefits with respect to the research and development activities which it carries on in Canada.

Symbiotech, Inc.

Hybridon and Symbiotech, Inc., a development stage biotechnology company ("Symbiotech"), have entered into a letter of intent to form a new company for the development of quantitative in vitro diagnostic, detection and biological amplification products using certain of the Company's antisense oligonucleotides and Symbiotech's phage technology. The letter of intent provides for each of Hybridon and Symbiotech to grant the new company exclusive worldwide royalty-free licenses of certain of their respective technologies for the development of these products. The letter of intent also has been signed by Medical Science Partners, L.P. ("MSP") and Pillar S.A., which have indicated an intention initially to invest a total of $250,000 in the new company. It is anticipated that each of Hybridon and Symbiotech initially will own approximately one-third of the equity in the new company, with the balance held by MSP, Pillar S.A. and certain key employees or consultants, including certain officers and directors of the Company. The majority of the capital stock of Symbiotech is owned by MSP.

Because a definitive agreement relating to this transaction has not yet been executed by the parties, it is possible that the final terms of this arrangement may differ from those summarized above, possibly materially, or that this transaction will not be consummated.

MANUFACTURING TECHNOLOGY AND THE HYBRIDON SPECIALTY PRODUCTS DIVISION

The Company has developed a manufacturing technology platform which integrates key elements of the manufacturing process to increase the purity of oligonucleotide products, enhance the efficiency of the production process and increase the scale of production. The Company has developed two separate commercial scale oligonucleotide synthesizers. One of these machines was developed in an internal program and the other in a collaboration with Pharmacia. Both machines are designed with a capacity of up to 100 millimoles (approximately 300 grams per batch), although the Company believes that these machines may be able to exceed such capacity. Pharmacia has retained the right to sell the machine developed under the collaboration to third parties, subject to an obligation to pay Hybridon royalties on such third party sales. The Company believes that its machine is the first commercial scale synthesizer designed for more advanced chemistries. In addition, the Company has implemented proprietary purification processes, which use water in place of chemical solvents, simplifying environmental compliance and permitting purification of kilogram batches of oligonucleotides. The Company has also developed proprietary chemical synthesis processes and novel reagents used in the synthesis process, which the Company believes will further decrease the cost of production of advanced oligonucleotides.

In 1996, Hybridon formed the Hybridon Specialty Products Division to capitalize on this technology and know-how and manufacture highly purified oligonucleotide compounds both for Hybridon's internal use and for sale to third parties, including the Company's collaborative partners, on a custom contract basis. The Company is manufacturing oligonucleotides at its 36,000 square foot leased manufacturing facility, which the Company believes is the first commercial-scale synthetic DNA production facility with a fully integrated manufacturing technology platform, including large-scale synthesis, purification and proprietary analytical support. The Company first began production of oligonucleotide compounds for sale to third parties in June 1996 and by the end of 1996 had achieved sales revenues of approximately $1.1 million. The Company also has received orders to provide analytical services and plans to expand its product offerings to include proprietary intermediates used in the manufacture of oligonucleotides.

In order to strengthen the marketing of the Division's products, in 1996 the Company entered into a four-year sales and supply agreement with the Applied Biosystems Division of Perkin-Elmer. Under the agreement, Perkin-Elmer agreed to refer potential customers for the custom contract manufacture of oligonucleotides to Hybridon, and Hybridon agreed to purchase amidites from Perkin- Elmer for the manufacture of oligonucleotides sold to such customers and to pay Perkin-Elmer a percentage of the sales price paid by such customers. In addition, Perkin-Elmer licensed to Hybridon its oligonucleotide synthesis patents and agreed to discuss a future collaboration with respect to the development, marketing and distribution of Hybridon's proprietary intermediates.

The production of antisense compounds is similar to the chemical synthesis used in the production of conventional pharmaceuticals, and in contrast with typical biopharmaceuticals, does not involve any fermentation processes or living cells. Moreover, unlike many conventional drugs, antisense compounds targeted at different diseases can be manufactured with the same nucleotide building blocks and using the same manufacturing processes and equipment with minimal adjustments. As a result, the knowledge and experience that the Company obtains in the manufacture of one compound is substantially applicable to the manufacture of other oligonucleotide compounds for the treatment of other diseases and results in other manufacturing efficiencies.

The Company will need to further increase its manufacturing capacity through the purchase or construction of additional large-scale oligonucleotide synthesizers in order to satisfy its anticipated future requirements for GEM 91 and the Company's other product candidates and in order to manufacture oligonucleotides on a custom contract basis for sale to third parties. In addition, in order to successfully commercialize its product candidates or achieve satisfactory margins on sales, the

Company may be required to reduce further the cost of production of its oligonucleotide compounds. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - - Certain Factors That May Affect Future Results -- Limited Manufacturing Capability."

The Company believes that it is currently manufacturing oligonucleotides in substantial compliance with FDA requirements for manufacturing in compliance with GMP, although its facility and procedures have not been formally inspected by the FDA and the procedures and documentation followed may have to be enhanced in the future as the Company expands its oligonucleotide production activities. Failure to establish to the FDA's satisfaction compliance with GMP can result in the FDA denying authorization to initiate or continue clinical trials, to receive approval of a product or to begin or to continue commercial marketing.

In addition, the Company's manufacturing processes are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of certain materials and waste products.

MARKETING STRATEGY

Hybridon plans to market the pharmaceutical products it is developing either directly or through co-marketing, licensing, distribution or other arrangements with pharmaceutical and biotechnology companies. Hybridon's current strategy with respect to these products in development is to build a hospital-targeted direct sales group for products for HIV-1 infection and AIDS and other market areas that can be accessed with a small to medium size sales force. Implementation of this strategy will depend on many factors, including the market potential of any such products the Company develops as well as on the Company's financial resources. The Company does not expect to establish a direct sales capability with respect to such products until such time as one or more of such products approach marketing approval. To market those products that will serve a large, geographically diverse patient population, the Company expects to enter into licensing, distribution or partnering agreements with pharmaceutical and biotechnology companies that have large, established sales organizations. To the extent the Company enters into marketing arrangements with third parties, any revenues received by the Company will be dependent on the efforts of such third parties, and there can be no assurance that such efforts will be successful. While the Company has developed general marketing strategies, it has not begun the implementation of any of these strategies with respect to any of these potential products.

ACADEMIC AND RESEARCH COLLABORATIONS

Hybridon has entered into over 50 collaborative research agreements relating to specific disease targets and other research activities in order to augment its internal research capabilities and to obtain access to the specialized knowledge or expertise of its collaborative partners. With respect to certain of the Company's drug development programs, the Company relies primarily upon outside collaborators. Accordingly, termination of the Company's collaborative research agreements with any of these collaborators could result in the termination of the related research program.

In general, the Company's collaborative research agreements require the payment by Hybridon of various amounts in support of the research to be conducted. The Company usually provides the collaborator with selected oligonucleotides, which the collaborator then tests in his or her assay systems. If the collaborator creates any invention during the course of his or her efforts, solely or jointly with the Company, Hybridon generally has an option to

negotiate an exclusive, worldwide, royalty-bearing license of the collaborator's rights in the invention for the purpose of commercializing any product incorporating such invention. Inventions developed solely by Hybridon's scientists as part of the collaboration generally are owned exclusively by Hybridon. Most of these collaborative agreements are non-exclusive and can be cancelled on relatively short notice.

PATENTS, TRADE SECRETS AND LICENSES

Proprietary protection for the Company's product candidates, processes and know-how is important to Hybridon's business. Thus, the Company plans to prosecute and enforce aggressively its patents and proprietary technology. The Company's policy is to file patent applications to protect technology, inventions and improvements that are considered important to the development of its business. Hybridon seeks to establish a comprehensive proprietary position through a "layered" patent strategy covering the Company's families of oligonucleotide chemistries, the antisense sequences of the Company's oligonucleotide compounds and the overall chemical compositions of these oligonucleotide compounds. The Company believes that this approach may provide it with at least three independent levels of protection. Hybridon also seeks to protect its proprietary analytical and manufacturing processes. The patents and patent applications owned or exclusively licensed by the Company also are directed to many aspects of the Company's proprietary oligonucleotide production and analysis technology and ribozyme technology. The Company also relies upon trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain its competitive position.

As of February 28, 1997, Hybridon owned or exclusively licensed 23 issued U.S. patents, six issued European patents, 31 allowed U.S. patent applications, eight allowed European applications and 168 other U.S. patent applications. Of these, the Company owned (as opposed to licensed) nine issued U.S. patents, 22 allowed U.S. patent applications and 159 other U.S. patent applications along with corresponding patent applications in many cases in other major industrial countries. The patents and applications owned by the Company cover various chemically advanced oligonucleotides, proprietary target sequences, specific preferred oligonucleotide products, methods for making and purifying oligonucleotides, analytical methods and methods for oligonucleotide-based therapeutic treatment of various diseases. The U.S. patents owned or exclusively licensed by Hybridon expire at various dates ranging from 2006 to 2014.

Under the terms of a license agreement with the Worcester Foundation (the "Foundation License"), Hybridon is the worldwide, exclusive licensee under twelve issued U.S. patents, four issued European patents, six allowed U.S. patent applications, two allowed European patent applications and six other U.S. patent applications owned by the Worcester Foundation relating to oligonucleotides and their production and use, as well as certain ribozyme-related technology. Many of these patents and patent applications have corresponding applications on file in other major industrial countries.

One of the issued U.S. patents (the "HIV Patent") and one of the issued European patents licensed from the Worcester Foundation broadly claim antisense oligonucleotides as new compositions of matter for inhibiting the replication of HIV. The other issued U.S. patents include claims covering composition and uses of oligonucleotides based on the Company's advanced chemistries, methods of oligonucleotide synthesis that are potentially applicable to large-scale commercial production, compositions of certain modified oligonucleotides that are useful for diagnostic tests or assays and methods of purifying full-length oligonucleotides after synthesis. The earliest expiration of the patents licensed to the Company by the Worcester Foundation is 2006, when the HIV Patent

expires.

The Company also is the exclusive licensee under various other U.S. and foreign patents and patent applications, including one U.S. patent, one allowed U.S. patent application and one U.S. patent applications jointly owned by the Worcester Foundation and the Mount Sinai Medical Center of New York claiming the use of antisense oligonucleotides for the inhibition of influenza viruses and two U.S. patent applications owned by McGill University relating to oligonucleotides and DNA methyltransferase. The Company and MGH jointly own three patent applications and one allowed U.S. patent application directed to compositions and use of antisense applied to Alzheimer's disease. The Company holds an exclusive license to MGH's interests under such patent applications.

The Company is a non-exclusive licensee of certain patents held by the NIH relating to oligonucleotide phosphorothioates and a non-exclusive licensee of an NIH patent covering the phosphorothiolation of oligonucleotides. The field of each of these licenses extends to a wide variety of genetic targets. If certain of the claims of the NIH patents non-exclusively licensed to Hybridon are valid, GEM 91 and certain of the Company's other products in development would infringe these patents in the absence of the license.

The U.S. PTO has informed Hybridon that certain otherwise allowable patent applications exclusively licensed by the Company from Worcester Foundation have been submitted to the Board of Patent Appeals and Interferences to determine whether an interference should be declared with issued U.S. patents held by the NIH relating to oligonucleotide phosphorothioates. Banner & Witcoff, the Company's U.S. patent counsel, is of the opinion that the Worcester Foundation patent application has a prima-facie case for priority against the NIH for an invention that includes phosphorothioate-modified oligonucleotides. However, there can be no assurance an interference can be declared, or if declared, as to the outcome thereof. In addition, Hybridon has filed an opposition to the NIH oligonucleotide phosphorothioate patent in Europe. There can be no assurance as to the outcome of the opposition. An adverse outcome in either the interference or the European opposition would not affect the non-exclusive license from the NIH to Hybridon of the NIH phosphorothioate patents.

Under the licenses to which it is a party, the Company is obligated to pay royalties on net sales by the Company of products or processes covered by a valid claim of a patent or patent application licensed to it. The Company also is required in some cases to pay a specified percentage of any sublicense income that the Company may receive. These licenses impose various commercialization, sublicensing, insurance and other obligations on the Company. Failure of the Company to comply with these requirements could result in termination of the license. The Foundation License also grants the Company a right of first refusal to certain technology developed by the Worcester Foundation.

The patent positions of pharmaceutical and biotechnology firms, including Hybridon, are generally uncertain and involve complex legal and factual questions. Consequently, even though Hybridon and its licensors are currently prosecuting their respective patent applications with the U.S. Patent and Trademark Office and certain foreign patent authorities, the Company does not know whether any of its applications or those of third parties under which the Company has or may obtain a license will result in the issuance of any patents or, if any patents are issued, whether they will provide significant proprietary protection or will be circumvented or invalidated. Since patent applications in the U.S. are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature tend to lag behind actual discoveries by several months, Hybridon cannot be certain that it, or any licensor of patents to it, as the case may be, was the first creator of

inventions claimed by pending patent applications or that Hybridon or any licensor, as the case may be, was the first to file patent applications for such inventions. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Patents and Proprietary Rights."

Competitors of the Company and other third parties hold issued patents and pending patent applications relating to antisense and other gene expression modulation technologies, and it is uncertain whether these patents and patent applications will require the Company to alter its products or processes, pay licensing fees or cease certain activities. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Patents and Proprietary." In particular, the Company is aware of a European patent granted to a third party relating to certain types of stabilized synthetic oligonucleotides for use as therapeutic agents for selectively blocking the translation of a messenger RNA into a targeted protein by binding with a portion of the messenger RNA to which the stabilized synthetic oligonucleotide is substantially

complementary. This European patent was revoked in entirety in an opposition proceeding before the European Patent Office in September 1995. The holder of this patent has appealed such decision.

The Company is also aware of various issued U.S. patents and patent applications owned by third parties that claim various uses of ribozymes, including their use to modulate gene expression, particular ribozymes of specific molecular sequences and methods of ribozyme production. Foreign counterparts of certain of these patents and patent applications have been filed in other major industrialized countries. There can be no assurance that the Company will be successful in designing or producing ribozymes that fall outside the valid scope of these patents and patent applications or that any license that may be required for the Company to exploit ribozyme products, if any, will be available on acceptable terms or at all. None of the Company's antisense oligonucleotides infringe any of these patents. In addition, Banner & Witcoff is of the opinion that the Company's finderons, oligonucleotides with ribonuclease-like activity that do not contain enzymatic RNA, do not infringe the claims of these patents and patent applications.

Hybridon's practice is to require its employees, consultants, members of its Scientific and Clinical Advisory Boards, outside scientific collaborators and sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with the Company. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with Hybridon is to be kept confidential and not disclosed to third parties, subject to a right to publish certain information in the scientific literature in certain circumstances and subject to other specific exceptions. In the case of employees, the agreements provide that all inventions conceived by the individual shall be the exclusive property of the Company. There can be no assurance, however, that these agreements will provide meaningful protection for the Company's trade secrets or adequate remedies in the event of unauthorized use or disclosure of such information.

Hybridon engages in collaborations and sponsored research agreements and enters into preclinical and clinical testing agreements with academic and research institutions and U.S. government agencies, such as the NIH, to take advantage of their technical expertise and staff and to gain access to clinical evaluation models, patients, and related technology. Consistent with pharmaceutical industry and academic standards, and the rules and regulations

under the Federal Technology Transfer Act of 1986, these agreements may provide that developments and results will be freely published, that information or materials supplied by Hybridon will not be treated as confidential and that Hybridon may be required to negotiate a license to any such developments and results in order to commercialize products incorporating them. There can be no assurance that the Company will be able successfully to obtain any such license at a reasonable cost or that such developments and results will not be made available to competitors of the Company on an exclusive or nonexclusive basis. See "Item 1. Business -- Academic and Research Collaborations."

GOVERNMENT REGULATION

The production and marketing of the Company's products and its research and development activities are subject to regulation for safety, effectiveness and quality by numerous governmental authorities in the U.S. and other countries. The Company believes that it is in material compliance with all federal, state and foreign legal and regulatory requirements under which it operates. However, there can be no assurance that such legal or regulatory requirements will not be amended or that new legal or regulatory requirements will not be adopted, any one of which could have a material adverse effect on the Company's business or results of operations.

FDA Approval

In the U.S., pharmaceutical products intended for therapeutic or diagnostic use in humans are subject to rigorous FDA regulation. The process of completing clinical trials and obtaining FDA approvals for a new drug is likely to take a number of years and requires the expenditure of substantial resources. There can be no assurance that any product will receive such approval on a timely basis, if at all. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- No Assurance of Regulatory Approval; Government Regulation."

The steps required before a new oligonucleotide-based pharmaceutical product for use in humans may be marketed in the U.S. include (i) preclinical tests, (ii) submission to the FDA of an IND application, which must become effective before human clinical trials commence, (iii) adequate and well-controlled human clinical trials to establish the safety and effectiveness of the product, (iv) submission of a New Drug Application ("NDA") to the FDA, and (v) FDA approval of the NDA prior to any commercial sale or shipment of the product.

Preclinical tests include laboratory evaluation of product chemistry and formulation, as well as animal studies, to assess the potential safety and effectiveness of the product. Compounds must be manufactured according to GMP and preclinical safety tests must be conducted by laboratories that comply with FDA regulations regarding GLP. See "Item 1. Business -- Manufacturing." The results of the preclinical tests are submitted to the FDA as part of an IND and are reviewed by the FDA prior to the commencement of human clinical trials. Unless the FDA objects to, or makes comments or raises questions concerning, an IND, the IND will become effective 30 days following its receipt by the FDA. There can be no assurance that submission of an IND will result in FDA authorization to commence clinical trials.

Clinical trials involve the administration of the investigational new drug to healthy volunteers and to patients, under the supervision of a qualified principal investigator. Clinical trials are conducted in accordance with Good Clinical Practices under protocols that detail the objectives of the study, the parameters to be used to monitor safety and the effectiveness criteria to be

evaluated. Each protocol must be submitted to the FDA as part of the IND. Further, each clinical study must be conducted under the auspices of an independent Institutional Review Board (an "IRB"). The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution.

Clinical trials are typically conducted in three sequential phases, although the phases may overlap. In Phase I, the investigational new drug usually is administered to healthy human subjects and is tested for safety (adverse effects), dosage, tolerance, metabolism, distribution, excretion and pharmacodynamics (clinical pharmacology). Phase II involves studies in a limited patient population to (i) determine the effectiveness of the investigational new drug for specific indications, (ii) determine dosage tolerance and optimal dosage, and (iii) identify possible adverse effects and safety risks. When an investigational new drug is found to be effective and to have an acceptable safety profile in Phase II evaluation, Phase III trials are undertaken to further evaluate clinical effectiveness and to further test for safety within an expanded patient population at geographically dispersed clinical study sites. There can be no assurance that Phase I, Phase II or Phase III testing will be completed successfully within any specified time period, if at all, with respect to any of the Company's products subject to such testing. Furthermore, the Company, an IRB or the FDA may suspend clinical trials at any time if it is felt that the participants are being exposed to an unacceptable health risk.

The results of the pharmaceutical development, preclinical studies and clinical studies are submitted to the FDA in the form of an NDA for approval of the marketing and commercial shipment of the product. The FDA may require additional testing or information before approving the NDA. In

any event, the FDA may deny an NDA if applicable regulatory criteria are not satisfied. Moreover, if regulatory approval of a product is granted, such approval may require postmarketing testing and surveillance to monitor the safety of the product or may entail limitations on the indicated uses for which it may be marketed. Finally, product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing.

In addition to product approval, the Company may be required to obtain a satisfactory inspection by the FDA covering the Company's manufacturing facilities before a product manufactured by the Company can be marketed in the U.S. The FDA will review the Company's manufacturing procedures and inspect its facilities and equipment for compliance with GMP and other applicable rules and regulations. Any material change by the Company in its manufacturing process, equipment or location would necessitate additional FDA review and approval.

Foreign Regulatory Approval

Whether or not FDA approval has been obtained, approval of a pharmaceutical product by comparable governmental regulatory authorities in foreign countries must be obtained prior to the commencement of clinical trials and subsequent marketing of such product in such countries. The approval procedure varies from country to country, and the time required may be longer or shorter than that required for FDA approval.

Under European Community ("EC") law, either of two approval procedures may apply to the Company's products: a centralized procedure, administered by the EMEA (the European Medicines Evaluation Agency); or a decentralized procedure, which requires approval by the medicines agency in each EC Member State where the Company's products will be marketed. The centralized procedure is mandatory

for certain biotechnology products and available at the applicant's option for certain other products. Whichever procedure is used, the safety, efficacy and quality of the Company's products must be demonstrated according to demanding criteria under EC law and extensive nonclinical tests and clinical trials are likely to be required. In addition to premarket approval requirements, national laws in EC Member States will govern clinical trials of the Company's products, adherence to good manufacturing practice, advertising and promotion and other matters. In certain EC Member States, pricing or reimbursement approval may be a legal or practical precondition to marketing.

At present, pharmaceutical products generally may not be exported from the U.S. for other than research purposes until the FDA has approved the product for marketing in the U.S. However, a company may apply to the FDA for permission to export finished products or partially processed products to a limited number of countries prior to obtaining FDA approval for marketing in the U.S. The Company has FDA permission for the export of GEM 91 to France.

Other Regulation

In addition to regulations enforced by the FDA, the Company also is subject to regulation under the Occupational Safety and Health Act and other present and potential future federal, state or local regulations. Furthermore, because the Company's research and development involves the controlled use of hazardous materials, chemicals, viruses and various radioactive compounds, the Company's operations are subject to U.S. Department of Transportation and Environmental Protection Agency requirements and other federal, state and foreign laws and regulations regarding hazardous waste disposal, air emissions and wastewater discharge, including without limitation the Environmental Protection Act, the Toxic Substances Control Act and the Resource Conservation and Recovery Act. Although the Company believes that its procedures for handling and disposing of such materials comply with the standards prescribed by applicable regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an

accident, the Company could be held liable for any damages that result and any such liability could have a material adverse effect on the Company.

COMPETITION

The Company's products under development are expected to address several different markets defined by the potential indications for which such products are developed and ultimately approved by regulatory authorities. For several of these indications, the Company's proposed products will be competing with products and therapies either currently existing or expected to be developed, including antisense oligonucleotides developed by third parties. Competition among these products will be based, among other things, on product efficacy, safety, reliability, availability, price and patent position. An important factor will be the timing of market introduction of the Company's or competitive products. Accordingly, the relative speed with which Hybridon can develop products, complete the clinical trials and approval processes and supply commercial quantities of the products to the market is expected to be an important competitive factor. The Company's competitive position will also depend upon its ability to attract and retain qualified personnel, to obtain patent protection or otherwise develop proprietary products or processes, and to secure sufficient capital resources for the often substantial period between technological conception and commercial sales.

There are a number of companies, both privately and publicly held, that are conducting research and development activities on technologies and products

aimed at therapeutic modulation of gene expression. The Company believes that the industry-wide interest in these technologies and products will continue and will accelerate as the techniques which permit their application to drug development become more widely understood. There can be no assurance that the Company's competitors will not succeed in developing products based on oligonucleotides or other novel technologies that are more effective than any which are being developed by the Company or which would render the Company's technology and products obsolete and noncompetitive prior to recovery by the Company of the research, development and commercialization expenses incurred with respect to those products. Furthermore, because of the fundamental differences between gene expression modulation and other technologies, there may be indications for which such other technologies are superior to gene expression modulation. The development by others of new treatment methods not based on gene expression modulation technology for those indications for which the Company is developing compounds could render the Company's compounds noncompetitive or obsolete.

Competitors of the Company engaged in all areas of drug discovery in the U.S. and other countries are numerous and include, among others, major pharmaceutical and chemical companies, biotechnology firms, universities and other research institutions. Many of these competitors have substantially greater financial, technical and human resources than the Company. In addition, many of these competitors have significantly greater experience than the Company in undertaking preclinical studies and human clinical trials of new pharmaceutical products and obtaining FDA and other regulatory approvals of products for use in health care. Accordingly, the Company's competitors may succeed in obtaining FDA or other regulatory approvals for products more rapidly than the Company. Furthermore, if the Company is permitted to commence commercial sales of products, it will also be competing with respect to manufacturing efficiency and marketing capabilities, areas in which it has limited or no experience. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Competition."

EMPLOYEES

As of February 28, 1997, Hybridon employed 206 individuals full-time, of whom 99 held advanced degrees. 165 of these employees are engaged in research and development activities and 31 are employed in finance, corporate development and legal and general administrative activities. In addition, 90 of these employees are employees of the Hybridon Specialty Products Division, of whom

35 are employed in analytical research and quality control. Many of the Company's management and professional employees have had prior experience with pharmaceutical, biotechnology or medical products companies. None of the Company's employees is covered by collective bargaining agreements, and management considers relations with its employees to be good.

SCIENTIFIC ADVISORY BOARD

The Company's Scientific Advisory Board consists of individuals with recognized expertise in gene expression modulation technology, antisense oligonucleotides, oligonucleotide biochemistry, human genetics, medicine and related fields who advise the Company about current and long-term scientific planning, research and development. The Scientific Advisory Board holds approximately three or four formal meetings annually. All members of the Scientific Advisory Board are employed by employers other than the Company, primarily academic institutions, and may have commitments to or consulting or advisory agreements with other entities that may limit their availability to the

Company. These companies may also be competitors of Hybridon. Several members of the Scientific Advisory Board have, from time to time, devoted significant time and energy to the affairs of the Company. However, except for Drs. Zamecnik and Wyngaarden, who are parties to consulting agreements with the Company, no members are regularly expected to devote more than a small portion of their time to Hybridon.

The following persons are members of the Scientific Advisory Board:

Paul C. Zamecnik, M.D. (Chairman) is a founder of Hybridon and serves as a director of the Company. Dr. Zamecnik has served as a Principal Scientist of the Worcester Foundation and as the Collis P. Huntington Professor of Oncologic Medicine Emeritus at the Harvard Medical School since 1979.

Daniel M. Brown, Sc.D., F.R.S. has been a Fellow of King's College, University of Cambridge, since 1953, and currently serves as Vice-Provost of King's College and as an Attached Scientific Worker in the Medical Research Council Laboratory of Molecular Biology at the University of Cambridge. Dr. Brown is also an Emeritus Reader in Organic Chemistry at the University of Cambridge and became a Fellow of the Royal Society in 1982.

Edgar Haber, M.D. has served as the Elkan R. Blout Professor of Health Science and Director of the Division of Biological Sciences at the Harvard School of Public Health and as a Clinical Professor of Medicine at Harvard Medical School since 1991. From 1990 to 1991, Dr. Haber served as President of the Bristol-Myers Squibb Pharmaceutical Research Institute, and from 1988 to 1990, he was President of the Squibb Institute for Medical Research.

Har Gobind Khorana, Ph.D. has served as a Sloan Professor in the Departments of Biology and Chemistry at the Massachusetts Institute of Technology since 1970. Dr. Khorana has been awarded numerous prestigious honors, including the Nobel Prize in Medicine or Physiology in 1968 and the National Medal of Science in 1987.

Roger E. Monier, Ph.D. has served as Director of Molecular Oncology at the Institute Gustave Roussy in Paris since 1985. From 1980 to 1985, Dr. Monier served as the Director of Life Sciences at the Centre Nationale de Recherches Scientifiques in Paris. Dr. Monier was elected to the French Academy of Science in 1992.

Peter Palese, Ph.D. has served as a Professor in the Department of Microbiology at Mount Sinai School of Medicine in New York since 1978 and has served as Chairman of the Department of Microbiology since 1987.

Thoru Pederson, Ph.D. is a Principal Scientist of Cell Biology at the Worcester Foundation and has served as its President and Director since 1985. From February 1990 to November 1993, Dr. Pederson served as a director of the Company.

Jerry A. Weisbach, Ph.D. a director of the Company, is an independent consultant to biotechnology and pharmaceutical companies. Dr. Weisbach served as Director of Technology Transfer and as an Adjunct Professor at The Rockefeller University from 1988 to 1994. Dr. Weisbach served as Corporate Vice President of Warner-Lambert Company, an international pharmaceutical company, from 1981 to 1987 and President of the Parke-Davis Pharmaceutical Research Division of Warner-Lambert Company from 1979 to 1987.

James B. Wyngaarden, M.D. a director of the Company, served as the Foreign Secretary of the National Academy of Sciences and the Institute of Medicine of

the National Academy of Sciences from 1990 to 1994. Dr. Wyngaarden also served as the Director of the NIH from 1982 to 1989 and as a council member of the Human Genome Organization from 1990 to 1993 and as its Director from 1990 to 1991.

Members of the Company's Scientific Advisory Board are paid $2,500 per calendar quarter for their services in such capacity and are reimbursed for their expenses incurred in connection with attendance at its meetings. Members of the Scientific Advisory Board also have received options to purchase Common Stock of the Company under the Company's stock option plans.

CLINICAL ADVISORY BOARD

The Company's Clinical Advisory Board was formally established in November 1993 to advise the Company with respect to clinical trials of the Company's product candidates. The Clinical Advisory Board holds approximately three or four formal meetings annually. The Clinical Advisory Board consists of individuals with recognized expertise in the conduct of clinical trials and the regulatory approval process. All members of the Clinical Advisory Board are employed by employers other than the Company, primarily academic institutions, and may have commitments to or consulting or advisory agreements with other entities that may limit their availability to the Company. These companies may also be competitors of Hybridon. Several members of the Clinical Advisory Board have, from time to time, devoted significant time and energy to the affairs of the Company. However, except for Drs. Wyngaarden and Weisbach, who are directors of and consultants to the Company, and Dr. Groopman, who is a consultant to the Company, no members are regularly expected to devote more than a small portion of their time to Hybridon.

The following persons are members of the Clinical Advisory Board:

Dr. Wyngaarden's (Chairman) background and experience are described above under "Item 1. Business -- Scientific Advisory Board."

Robert M. Chanock, M.D. has served as an infectious disease epidemiologist and laboratory virologist at the NIH since 1957. Prior to that Dr. Chanock held academic appointments at the University of Cincinnati College of Medicine and the Johns Hopkins University School of Hygiene and Public Health. Dr. Chanock has been awarded numerous prestigious honors, including the ICN International Prize in Virology in 1990, the Bristol-Myers Squibb Award for Distinguished Achievement in Infectious Diseases Research in 1993 and the Albert B. Sabin Foundation award.

Vincent T. DeVita, Jr., M.D. has served as Director of the Yale Cancer Center since 1993. Dr. DeVita served as an attending physician and member of the Program of Molecular Pharmacology and Therapeutics from 1988 to 1993, and as Physician-in-Chief from 1988 to 1991, at Memorial Sloan Kettering Cancer Center. From 1980 to 1988, Dr. DeVita served as Director of the National Cancer Institute, NIH. In 1995, he was honored with the City of Medicine Award.

Jerome Groopman, M.D. has served as Chief of the Division of Hematology/Oncology at the New England Deaconess Hospital since 1985. He has also served as a Professor of Medicine at Harvard Medical School since 1993. Dr. Groopman is a member of the AIDS Advisory Committee, the Biologics Committee of the FDA, the AIDS Clinical Trials Group of the NIH and the AIDS Basic Science Research Study Section A, NIAID.

Paul Meier, Ph.D. has served as Professor and Chairman of the Department of

Statistics and Division of Biological Sciences at Columbia University since 1985. Dr. Meier has served as an advisor to the FDA on the statistical analysis of clinical trials since 1991.

Dr. Weisbach's background and experience are described under "Item 1. Business -- Scientific Advisory Board."

Members of the Company's Clinical Advisory Board are paid $2,500 per calendar quarter for their services in such capacity and are reimbursed for their expenses incurred in connection with attendance at its meetings.

ITEM 2. PROPERTIES.

The Company's executive, administrative and research and development facilities, comprising approximately 90,000 square fee, currently are located in Cambridge, Massachusetts. These facilities are held under a lease which expires in 2007, but may be extended at Hybridon's option for three additional five-year terms. The lease provides for an annual rent of approximately $38.00 per square foot for the first five years and approximately $42.00 per square foot for the second five years.

The Company leases its 36,000 square foot manufacturing facility in Milford, Massachusetts under a lease which expires in 2004. The term of the lease may be extended at Hybridon's option for two additional five-year terms. In addition to its manufacturing operations, the Company conducts process and analytical chemistry operations at this facility.

The Company also leases approximately 1,800 square feet of space in Paris, France under a lease expiring on May 1, 2003 for administrative offices for its European operations.

For a description of various arrangements relating to the Cambridge facility and the Paris facility, see "Certain Transactions -- Transactions with Pillar S.A. and Certain Affiliates" in the Company's 1997 Proxy Statement (as defined in "Item 10. Directors and Executive Officers of the Registrant").

ITEM 3. LEGAL PROCEEDINGS.

The Company is not a party to any litigation that it believes could have a material adverse effect on the Company or its business.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITYHOLDERS.

No matters were submitted to a vote of securityholders of the Company, through solicitation of proxies or otherwise, during the last quarter of the year ended December 31, 1996.

EXECUTIVE OFFICERS AND SIGNIFICANT EMPLOYEES OF THE COMPANY

The executive officers and significant employees of the Company and their ages as of March 15, 1997 are as follows:

NAME	AGE	POSITION

Executive Officers		
E. Andrews Grinstead, III.....	51	Chairman of the Board of Directors, President and Chief Executive Officer
Sudhir Agrawal, D. Phil.....	43	Senior Vice President of Discovery, Chief Scientific Officer and Director
Anthony J. Payne.....	50	Senior Vice President of Finance and Administration, International Operations, Chief Financial Officer, Treasurer and Secretary
Significant Employees		
Robert G. Andersen	46	Vice.President of Systems Engineering and Management Information Systems
Aharon Cohen, Ph.D.	52	Vice President of Analytical Research and Chief Analytical Scientist
Jose E. Gonzalez, Ph.D.	50	Vice President of Manufacturing
John Goodchild, Ph.D.	52	Vice President of Applied Chemistry and Ribozyme Research
J. Michael Grindel, Ph.D.	50	Vice President of Pre-Clinical Development
Philippe Guinot, M.D., Ph.D.	47	Vice President of Drug Development and General Manager, Hybridon Europe
Charles R. Hogen, Jr.	49	Vice President of Corporate Communications and Public Affairs
Douglas J. Jensen	44	Vice President of Corporate Administration and Development
Monroe I. Klein, Ph.D.	54	Vice.President of Regulatory Affairs
R. Russell Martin, M.D.	61	Vice President of Drug Development
Jin-Yan Tang, Ph.D.	52	Vice President of Process Development
Darlene A. Van Stone	34	Patent.Counsel
Mark C. Wiggins	41	Vice President of Business Development and Marketing

Mr. Grinstead joined the Company in June 1991 and was appointed Chairman of the Board and Chief Executive Officer in August 1991 and President in January 1993. He has served on the Board of Directors since June 1991. Prior to joining the Company, Mr. Grinstead served as Managing Director and Group Head of the life sciences group at PaineWebber, Incorporated, an investment banking firm, from 1987 to October 1990; Managing Director and Group Head of the life sciences group at Drexel Burnham Lambert, Inc., an investment banking firm, from 1986 to 1987; and Vice President at Kidder, Peabody & Co. Incorporated, an investment banking firm, from 1984 to 1986, where he developed the life sciences corporate finance specialty group. Mr. Grinstead served in a variety of operational and executive positions with Eli Lilly and Company ("Eli Lilly"), an international pharmaceutical company, from 1976 to 1984, most recently as General Manager of Venezuelan Pharmaceutical, Animal Health and Agricultural Chemical Operations and as Administrator, Strategic Planning and Acquisitions. Since 1991, Mr. Grinstead has served as a director of EcoScience Corporation, a development stage company engaged in the development of biopesticides, and as a director of Pharmos Corporation, a development stage company engaged in the development of drug

delivery systems. Mr. Grinstead also serves as a director of Meridian Medical Technologies, Inc., a pharmaceutical and medical device company. Mr. Grinstead was appointed to The President's Council of the National Academy of Sciences and the Institute of Medicine in January 1992. Since 1994, Mr. Grinstead has served as a member of the Board of Trustees of the Albert B. Sabin Vaccine Foundation, a charitable foundation dedicated to disease prevention. Mr. Grinstead received

an A.B. from Harvard College in 1967, a J.D. from the University of Virginia School of Law in 1974 and an M.B.A. from the Harvard Graduate School of Business Administration in 1976.

Dr. Agrawal joined the Company in February 1990 and served as Principal Research Scientist from February 1990 to January 1993 and as Vice President of Discovery from December 1991 to January 1993 prior to being appointed Chief Scientific Officer in January 1993 and Senior Vice President of Discovery in March 1994. He has served on the Board of Directors since March 1993. Prior to joining the Company, Dr. Agrawal served as a Foundation Scholar at the Worcester Foundation from 1987 through 1991 and currently maintains Visiting Scholar status. Dr. Agrawal served as a Research Associate at the Medical Research Council Laboratory of Molecular Biology in Cambridge, England, from 1985 to 1986, studying synthetic oligonucleotides. Dr. Agrawal received a B.Sc. in chemistry, botany and zoology in 1973, an M.Sc. in organic chemistry in 1975 and a D. Phil. in chemistry in 1980 from Allahabad University in India.

Mr. Payne joined the Company in June 1991 and was appointed Chief Financial Officer in August 1991, Treasurer in September 1991, Secretary in April 1992 and Senior Vice President of Finance and Administration, International Operations in January 1993. Prior to joining the Company, Mr. Payne served as Audit Director at The First National Bank of Boston, an international commercial bank, from 1990 to 1991, where he directed that bank's audit coverage in global banking and treasury. He served in a variety of financial and accounting positions with Manufacturers Hanover Trust Corporation, an international commercial bank, from 1980 to 1990, most recently as Vice President and Audit Director. From 1974 to 1979, Mr. Payne was associated with Price Waterhouse, an international public accounting firm. Mr. Payne received a B.Sc. in mathematics and physics from the University of London in 1970 and an M.Sc. in computer science from the University of Essex in 1973. Mr. Payne is both a chartered accountant and a certified public accountant.

Mr. Andersen joined the Company and was appointed Vice President of Systems Engineering and Management Information Systems in November 1996. Prior to joining the Company, Mr. Andersen served in a variety of positions at Digital Equipment Corporation, a computer company, from 1986 to 1996, most recently as Group Manager of the Applied Objects Group. From 1978 to 1986, Mr. Andersen served in a variety of positions at United Technologies Corporation, an aviation technology company, most recently as Director of Quality. Mr. Andersen received his B.E.E. in Electrical Engineering from The City College of New York in 1972 and a M.S. from Northeastern University in 1978.

Dr. Cohen joined the Company in March 1992 and served as Director of Analytical Research from 1992 to June 1993 prior to being appointed Vice President of Analytical Research in June 1993. Prior to joining the Company, Dr. Cohen served as Senior Staff Scientist in the Barnett Institute at Northeastern University from 1987 to 1992 and as a Postdoctoral Research Associate at Northeastern University from 1985 to 1987. Dr. Cohen received a B.S. in chemistry in 1970, an M.S. in analytical chemistry in 1980 and a Ph.D. in analytical chemistry in 1985 from Hebrew University.

Dr. Gonzalez joined the Company and was appointed Vice President of Manufacturing in August 1995. Prior to joining the Company, Dr. Gonzalez served as Vice President of Manufacturing Operations at Enzon Corporation, a biotechnology company, from 1993 to 1995. From 1977 to 1993, Dr. Gonzalez served in a variety of positions at The Upjohn Company, a pharmaceutical company, most recently as Associate Director of Bioprocess Development. Dr. Gonzalez received a B.S. in

chemistry from the University of Miami in 1969 and a Ph.D. in biochemistry from Purdue University in 1974.

Dr. Goodchild joined the Company in March 1992 and served as Vice President of Ribozyme Research from March 1992 to July 1993 prior to being appointed Vice President of Applied Chemistry and Ribozyme Research in July 1993. He also has served as an Adjunct Associate Professor at the University of Massachusetts Medical Center Department of Pharmacology since September 1992. Prior to joining the Company, Dr. Goodchild was a faculty member and Staff Scientist from 1987 to 1992 and a Visiting Scientist from 1984 to 1987 at the Worcester Foundation and a Visiting Scientist at the National Research Council of Canada from 1982 to 1984. From 1971 to 1982, he was a Senior Research Scientist and Group Leader at Searle. Dr. Goodchild is a Fellow of the Royal Society of Chemistry and became a chartered chemist in 1979. Dr. Goodchild received a B.Sc. in chemistry in 1965 and a Ph.D. in organic chemistry in 1968 from Liverpool University.

Dr. Grindel joined the Company and was appointed Vice President of Preclinical Development in September 1994. Prior to joining the Company, Dr. Grindel served in a variety of positions at R.W. Johnson Pharmaceutical Research Institute, a division of Johnson & Johnson, from 1988 to 1994, most recently as Vice President of Strategic Planning, Project Planning and Management. Dr. Grindel received a B.S. in chemistry from St. Benedict's College in 1969 and a Ph.D. in medicinal chemistry from the University of Kansas in 1973.

Dr. Guinot joined the Company and was appointed Vice President of European Drug Development and General Manager of Hybridon Europe in September 1995. Prior to joining the Company, Dr. Guinot served as a consultant to the Laboratoire Francais du Fractionnemant et des Biotechnologies (the "LFB") from 1994 to 1995, where he was responsible for conducting audits of all of the LFB's research and development programs. From 1981 to 1994, Dr. Guinot served in a variety of positions at the Beaufour-Ipsen Group, a group of affiliated pharmaceutical companies, most recently as General Manager of the Institute Henri Beaufour where he was responsible for the planning, strategy, budget and coordination of the Beaufour-Ipsen Group's product development efforts. In addition, Dr. Guinot has served as an Adjunct Professor of Medicine at the University of California, Davis since 1992, an Adjunct Professor of Physiology at New York Medical College since 1991 and Consultant Physician in Internal Medicine at Broussais Hospital in Paris. Dr. Guinot received an M.D. from the University of Paris in 1975 and a Ph.D. in biophysics from Clermont Ferrand in 1994.

Mr. Hogen joined the Company and was appointed Vice President of Corporate Communications and Public Affairs in February 1996. Prior to joining the Company, Mr. Hogen served in a variety of positions at Merck & Co., a pharmaceutical company, from 1988 to 1995, most recently as Executive Director of Public Affairs. From 1978 to 1988, Mr. Hogen served in a variety of positions at United Technologies Corporation, most recently as Director of Contributions and Community Affairs. Mr. Hogen received a B.A. from Yale University in 1970.

Mr. Jensen joined the Company and served as Vice President of Administration and Corporate Communications from March 1994 to May 1996 prior to being appointed Vice President of Corporate Administration and Development in May 1996. Prior to joining the Company, Mr. Jensen served as Managing Partner of Parkway Capital Corporation, a securities firm which he co-founded, from 1990 to 1994. From 1984 to 1990, Mr. Jensen served as Senior Vice President of Oppenheimer & Co., Inc., where he was responsible for marketing the firm's proprietary trading strategies, and, from 1983 to 1984, as a registered representative of Merrill Lynch. Mr. Jensen received a B.A. from Wheaton College in 1976.

Dr. Klein joined the Company and was appointed Vice President of Regulatory Affairs in November 1996. Prior to joining the Company, Dr. Klein served as the Vice President of Worldwide Regulatory Affairs at Cephalon, Inc., a pharmaceutical company, from 1994 to 1996. From 1990 to

1993, Dr. Klein served as the Vice President of Regulatory Affairs at Carter-Wallace, Inc., a pharmaceutical company, and from 1983 to 1990 he held a variety of regulatory positions at SmithKline & French Laboratories. Dr. Klein received his B.Sc. in Pharmacy from Philadelphia College of Pharmacy and Science in 1965 and a Ph.D. in Pharmacology from the Albert Einstein College of Medicine in 1972.

Dr. Martin joined the Company and served as Vice President of Clinical Research from April 1994 to February 1997 prior to being appointed Vice President of Drug Development in February 1997. Prior to joining the Company, Dr. Martin served in a variety of positions at Bristol Myers Squibb from 1983 to 1994, most recently as Vice President of Clinical Research (Infectious Diseases). During such period, he served as an Adjunct Associate Professor of Medicine and Associate Clinical Professor at Yale University School of Medicine from 1987 to 1994, Clinical Professor at University of Connecticut School of Medicine from 1986 to 1993 and Adjunct Professor of Medicine at Baylor College of Medicine from 1983 to 1994. Prior to joining Bristol Myers Squibb, Dr. Martin served as Professor of Medicine, Microbiology and Immunology at Baylor College from 1975 to 1983. Dr. Martin received an A.B. in American studies from Yale University in 1956 and an M.D. from the Medical College of Georgia in 1960.

Dr. Tang joined the Company in 1991 and served as Senior Research Scientist from 1991 to 1993, Director of Oligonucleotide Chemistry from 1993 to 1994 and Executive Director of Process Chemistry from 1994 to April 1995 prior to being appointed Vice President of Process Development in April 1995. Prior to joining the Company, Dr. Tang served as a Visiting Fellow at the Worcester Foundation from 1988 to 1991. He also served as a Visiting Professor at the University of Colorado in 1988. Dr. Tang received a B.S. in biochemistry from Shanghai University of Sciences and Technology in 1965 and a Ph.D. from the Shanghai Institute of biochemistry in 1978.

Ms. VanStone joined the Company in May 1995 as its patent counsel. Prior to joining the Company, Ms. VanStone served as patent counsel at ImmuLogic Pharmaceutical Corporation from 1992 to 1995 and as an associate attorney at the law firm of Weingarten, Schurgin, Gabnebin & Hayes from 1989 to 1992. Ms. VanStone received an A.B. in biochemistry from Mount Holyoke College in 1984 and a J.D. from Suffolk University Law School in 1989.

Mr. Wiggins joined the Company and was appointed Vice President of Business Development and Marketing in November 1996. Prior to joining the Company, Mr. Wiggins served in a variety of positions at Schering-Plough Corporation, a pharmaceutical company, from 1986 to 1996, most recently as the Director of Business Development. From 1980 to 1986, Mr. Wiggins held various marketing positions at Ortho Pharmaceuticals, Inc., a pharmaceutical company, and Pfizer, Inc., a pharmaceutical company. Mr. Wiggins received his B.S. in Finance from Syracuse University in 1978 and a M.B.A. from the University of Arizona in 1980.

PART II

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

Since January 24, 1996, the Company's Common Stock has traded on the Nasdaq National Market under the symbol "HYBN." Prior to January 24, 1996, there was no established public trading market for the Company's Common Stock.

The following table sets forth for the periods indicated the high and low sales prices per share of the Common Stock during each of the quarters set forth below as reported on the Nasdaq National Market since January 24, 1996.

	HIGH	LOW
1996		
First Quarter (from January 24, 1996).....	$14.25	$ 8.75
Second Quarter.....	11.875	5.125
Third Quarter.....	11.875	6.625
Fourth Quarter.....	8.625	5.25
1997		
First Quarter (through March 26, 1997).....	8.625	5.625

The reported closing bid price of the Common Stock on the Nasdaq National Market on March 26, 1997 was $6.375 per share. The number of stockholders of record on March 14, 1997 was 352.

The Company has never declared or paid cash dividends on its capital stock, and the Company does not expect to pay any cash dividends on its Common Stock in the foreseeable future. The indenture under which the Company has agreed to issue $50.0 million of 9% Convertible Subordinated Notes due 2004 (the "Notes") on April 2, 1997 limits the Company's ability to pay dividends or make other distributions on its Common Stock. In addition, the Company is currently prohibited from paying cash dividends under a credit facility with a commercial bank (the "Bank Credit Facility").

RECENT SALES OF UNREGISTERED SECURITIES

During the quarterly period ended December 31, 1996, the Company sold the following securities that were not registered under the Securities Act of 1933, as amended (the "Securities Act"):

1. On October 25, 1996, the Company issued, for an aggregate purchase price of $1,637,352, a total of 204,669 shares of Common Stock to nine individuals and one entity upon exercise by such individuals and entity of warrants to purchase shares of Common Stock.

The shares of Common Stock issued in the above transactions were offered and sold in reliance upon the exemption from registration under Regulation S promulgated under the Securities Act, relative to sales by an issuer made outside of the United States.

ITEM 6. SELECTED FINANCIAL DATA.

The selected financial data presented below for each of the years ended December 31, 1992, 1993, 1994, 1995 and 1996 have been derived from the Company's Consolidated Financial Statements that have been audited by Arthur Andersen LLP, independent public accountants. These financial data should be read in conjunction with the Management's Discussion and Analysis of Financial Condition and Results of Operations, the Consolidated Financial Statements and the Notes thereto and the other financial information appearing elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	1992	1993	1994	1995	1996
	(In thousands, except per share data)				
STATEMENT OF OPERATIONS DATA:					
Revenues					
Research and Development	$ --	$ 917	$ 1,032	$ 1,186	$ 1,419
Product revenue	--	--	--	--	1,080
Royalty and other income	--	--	--	--	62
Interest income	12	267	135	219	1,447
	12	1,184	1,167	1,405	4,008
Operating Expenses					
Research and development	8,762	16,168	20,024	29,685	39,390
General and administrative	5,163	4,372	6,678	6,094	11,347
Interest	782	380	69	173	124
Total operating expenses	14,707	20,920	26,771	35,952	50,861
Net Loss	$(14,695)	$(19,736)	$(25,604)	$(34,547)	$(46,853)
Pro forma net loss per common share(1)				$ (2.13)	$ (1.93)
Pro forma weighted average common shares outstanding(1)				16,195	24,261

	As of December 31,				
	1992	1993	1994	1995	1996
	(In thousands)				
BALANCE SHEET DATA:					
Cash, cash equivalents and short-term investments(2)	$ 945	$ 8,767	$ 3,396	$ 5,284	$ 16,419
Working capital (deficit)	(301)	8,357	(1,713)	210	8,888
Total assets	5,187	15,243	11,989	19,618	41,537
Long-term debt, net of current portion	293	79	1,522	1,145	9,032
Convertible promissory notes payable	9,430	--	--	--	--
Deficit accumulated in the development	(22,454)	(42,190)	(67,794)	(102,341)	(149,194)
Total stockholders' equity (deficit)	(7,069)	12,178	4,774	12,447	22,855

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(1) Computed on the basis described in Note 2(b) of Notes to Consolidated Financial Statements attached as APPENDIX A hereto.

(2) Short-term investments consisted of U.S. government securities with maturities greater than three months but less than one year from the purchase date.

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

The Company is engaged in the discovery and development of genetic medicines based primarily on antisense technology. The Company commenced operations in February 1990 and since that time has been engaged primarily in research and development efforts, development of its manufacturing capabilities and organizational efforts, including recruitment of scientific and management personnel, and raising capital. To date, the Company has not received revenue from the sale of biopharmaceutical products developed by it. In order to commercialize its own products, the Company will need to address a number of technological challenges and comply with comprehensive regulatory requirements. Accordingly, it is not possible to predict the amount of funds that will be required or the length of time that will pass before the Company receives revenues from sales of any of these products. All revenues received by the Company to date have been derived from collaborative agreements, interest on invested funds and revenues from the custom contract manufacturing of synthetic DNA and reagent products by the Company's Hybridon Specialty Products Division.

The Company has incurred losses since its inception and expects to incur significant operating losses in the future. The Company expects that its research and development expenses will increase significantly during 1997 and future years as it moves its principal research and development programs to more advanced preclinical studies, clinical trials and later phase clinical trials. In addition, the Company expects that its facilities costs will increase in 1997 and future years over 1996 levels as a result of the relocation of the Company's executive offices and its primary research and development laboratories to Cambridge, Massachusetts in February 1997. The Company also expects that its personnel and patent costs will increase significantly in the future. Costs associated with the Company's patent applications are expected to increase as the Company continues to file and prosecute such applications. Patent costs also would increase significantly if the Company became involved in litigation or administrative proceedings involving its patents or those of third parties. The Company has incurred cumulative losses from inception through December 31, 1996 of approximately $149.2 million.

This Annual Report on Form 10-K contains forward-looking statements. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward- looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects" and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause the Company's actual results to differ materially from those indicated by such forward-looking statements. These factors include, without limitation, those set forth below under the caption "Certain Factors That May Affect Future Results."

RESULTS OF OPERATIONS

The Company had total revenues of $4.0 million in 1996, $1.4 million in 1995 and $1.2 million in 1994. During the years ended December 31, 1996, 1995 and 1994, the Company received revenues from research and development collaborations of $1.4 million, $1.2 million and $1.0 million, respectively. Research and development collaboration revenue includes revenues earned under a collaborative agreement with Roche, which included milestone payments for the designation of lead compounds in the human papilloma virus and hepatitis C programs in the years ended December 31, 1996 and 1995, respectively. For the year ended December 31, 1996, collaborative revenues also included revenues earned under a collaborative agreement with Searle. Revenues from the custom contract manufacturing of synthetic DNA and reagent products by the Hybridon

Specialty Products Division were $1.1 million for the year ended December 31, 1996. Revenues from interest income for the years ended December 31, 1996, 1995 and 1994 were $1.4 million, $219,000 and $135,000, respectively. The increase in interest income in the year ended December 31, 1996 was the result of

substantially higher cash balances available for investment as a result of the Company's initial public offering completed on February 2, 1996.

During the years ended December 31, 1996, 1995 and 1994, the Company expended $39.4 million, $29.7 million and $20.0 million, respectively, on research and development activities. The increases in research and development expenses in 1996, 1995 and 1994 reflect increasing expenses related primarily to ongoing clinical trials of the Company's product candidates. Clinical trials for GEM 91 were initiated in France in October 1993 and in the U.S. in May 1994. During the year ended December 31, 1996, GEM 132 for the treatment of systemic CMV and CMV retinitis entered into clinical trials. Research and development staffing and related costs also increased significantly in 1996 and 1995 as the number of employees engaged in research and development increased to 206 at December 31, 1996 from 124 at December 31, 1995 and from 102 at December 31, 1994. In addition, due to increased activity in preclinical studies and the initiation of clinical trials, expenditures for outside testing services, laboratory supplies and consulting fees increased significantly in 1996 and 1995. Patent expenses also increased in 1996, as the Company continued to develop a patent portfolio both domestically and internationally and prosecuted its patent applications. The Company expects to invest significant resources in 1997 in connection with the ongoing trials of GEM 91 and GEM 132 and the performance of preclinical studies and the preparation of IND applications with respect to additional antisense compounds.

The Company incurred general and administrative expenses of $11.3 million, $6.1 million and $6.7 million in the years ended December 31, 1996, 1995 and 1994, respectively. The increase in general and administrative expenses in 1996 from 1995 was primarily attributable to an increase in expenses for business development activity, public relations and legal expenses incurred primarily as a result of being a public company and salaries and related costs. The decrease in general and administrative expenditures in 1995 from 1994 was primarily attributable to decreases in staffing and related costs and in outside consultants previously used to develop a presence in foreign markets, offset partially by an increase in occupancy costs of certain new facilities.

Interest expense was $124,000 in 1996, $173,000 in 1995 and $69,000 in 1994. Interest expense in 1996, 1995 and 1994 was comprised primarily of interest incurred on borrowings to finance the purchase of property and equipment and leasehold improvements. The decrease in interest expense in 1996 reflects a decrease in the outstanding balance of borrowings to finance the purchase of property and equipment. The increase in interest expense in 1995 over 1994 reflects an increase in the average long-term debt outstanding during 1995. The Company's future interest expense will increase significantly as a result of the Notes.

As a result of the above factors, the Company incurred net losses of $46.9 million, $34.5 million and $25.6 million for the years ended December 31, 1996, 1995 and 1994, respectively.

LIQUIDITY AND CAPITAL RESOURCES

From inception through December 31, 1996, the Company has financed its operations, including capital expenditures, through a public offering of common stock, private placements of equity securities and the exercise of stock options and warrants with gross proceeds totalling $175.4 million, as well as through

bank and other borrowings of $9.5 million and capital leases of $3.2 million. The Company has utilized approximately $127.8 million to fund operating activities and $30.5 million to finance capital expenditures, including leasehold improvements at the Company's Cambridge, Massachusetts corporate headquarters and at its manufacturing facility in Milford, Massachusetts and a $5.5 million investment in the partnership which owns the Cambridge facility.

On March 26, 1997, the Company entered into a Purchase Agreement pursuant to which it agreed to issue and sell $50.0 million of the Notes to certain investors. The Notes bear interest at a rate of 9% per annum and have a maturity date of April 1, 2004. Under the terms of the

Notes, the Company will be required to make semiannual interest payments on the outstanding principal balance of the Notes on April 1 and October 1 of each year during which the Notes are outstanding. The Notes will be convertible at the option of the holder into the Company's Common Stock at any time prior to maturity, unless previously redeemed or repurchased by the Company under certain specified circumstances, at a conversion price of $7.0125 per share (subject to adjustment). In connection with the execution of the agreement, the Company also granted a 60-day option (which expires on May 25, 1997) to purchase up to an additional $10.0 million principal amount of the Notes.

During the year ended December 31, 1996, the Company utilized approximately $42.1 million to fund operating activities and approximately $8.9 million for capital expenditures. The primary use of cash for operating activities was to fund the cash operating loss of $43.7 million. Capital expenditures during the year ended December 31, 1996 included amounts expended for the build-out and equipping of the Company's corporate headquarters and primary research and development laboratories in Cambridge, Massachusetts and of its leased manufacturing facility in Milford, Massachusetts. During the fourth quarter of 1996, the build-out of the Company's leased manufacturing facility in Milford, Massachusetts was completed. The Company plans to equip the facility in phases as necessary to satisfy its production requirements. The Company plans to expend approximately $2.3 million for its equipment requirements for this facility in 1997. The Company also expects to incur an additional $2.0 million to complete the Cambridge facility and approximately $1.0 million for other capital expenditures in 1997.

In December 1996, the Company entered into a four-year $7.5 million credit facility with a bank to finance the leasehold improvements of its Milford manufacturing facility. The Bank Credit Facility is payable in equal monthly payments of $62,500 plus interest with a balloon payment of $3.8 million due on January 1, 2002. Interest is payable at the lesser of (i) such financial institution's prime rate plus 1%, or (ii) such financial institution's LIBOR rate plus 3.5%. The Bank Credit Facility contains certain financial covenants, including minimum liquidity and net worth requirements, and prohibits the payment of dividends. The Company has secured its obligations under the Bank Credit Facility with a lien on all of its assets. If, at specified times, the Company's minimum liquidity is less than $15.0 million, $10.0 million or $5.0 million, the Company is required to pledge cash collateral to the bank equal to 25%, 50% and 100%, respectively, of the then outstanding balance due under the Bank Credit Facility pursuant to a cash pledge agreement.

In 1996, the Company financed the purchase of manufacturing equipment and other equipment at the Milford manufacturing facility through a sale/leaseback transaction of approximately $1.7 million under a $2.8 million lease line with a leasing company in the fourth quarter of 1996. These borrowings are payable in 48 monthly payments ranging from $36,000 to $50,000.

In 1994 and 1995, the Company financed the purchase of certain property and equipment through a $500,000 secured note payable to a financial institution, a $750,000 note payable to one of its landlords and $1.5 million of capital lease obligations. The $500,000 secured note was repaid in 1995, $661,000 of the $750,000 note is outstanding at December 31, 1996 and bears interest at a rate of 13% per annum and $457,000 of the capital lease obligations is currently outstanding and bears interest at a rate of 4.29% per annum.

The Company has entered into a lease for its corporate headquarters and primary research and development laboratories in Cambridge, Massachusetts and moved its operations to this facility in the first quarter of 1997. The Company's facilities costs increased significantly upon occupying the Cambridge facility. As part of the lease agreement, the Company has elected to treat $5.5 million of payments to the landlord (primarily related to tenant improvements) as contributions to the capital of the Cambridge landlord in exchange for a limited partnership interest in the Cambridge landlord. All other expenses incurred to equip and build-out the facility in excess of $5.5 million are included in

leasehold improvements and are not exchangeable for a partnership interest under the lease. The Cambridge landlord is an affiliate of three directors of the Company.

The Company had cash, cash equivalents and short-term investments of $16.4 million at December 31, 1996. Based on its current operating plan, the Company believes that its existing capital resources, together with the committed collaborative research and development payments from Searle, anticipated sales of the Hybridon Specialty Products Division and margins on such sales, which are expected to increase significantly over historic levels, and the net proceeds from the sale of the Notes and the interest earned thereon, will be adequate to fund the Company's capital requirements through at least the first quarter of 1998.

The Company's future capital requirements will depend on many factors, including continued scientific progress in its research, drug discovery and development programs, the magnitude of these programs, progress with preclinical and clinical trials, sales of DNA products and reagents manufactured on a custom contract basis by the Hybridon Specialty Products Division and the margins on such sales, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting and enforcing patent claims, competing technological and market developments, the ability of the Company to establish and maintain collaborative academic and commercial research, development and marketing relationships, the ability of the Company to obtain third party financing for leasehold improvements and other capital expenditures and the costs of manufacturing scale-up and commercialization activities and arrangements.

The Company intends to seek additional equity, debt and lease financing to fund future operations. The Company also intends to seek additional collaborative development and commercialization relationships with potential corporate partners in order to fund certain of its programs. Except for research and development funding from Searle under Hybridon's collaborative agreement with Searle (which is subject to early termination in certain circumstances), Hybridon has no committed external sources of capital, and, as discussed above, expects no product revenues for several years from sales of the products that it is developing (as opposed to sales of DNA products and reagents manufactured on a custom contract basis by the Hybridon Specialty Products Division). If the Company is unable to obtain necessary additional funds, it would be required to

scale back or eliminate certain of its research and development programs or license to third parties certain technologies which the Company would otherwise pursue on its own.

As of December 31, 1996, the Company had approximately $138.2 million and $3.0 million of net operating loss and tax credit carryforwards, respectively, which expire at various dates between 2005 and 2011. The Tax Reform Act of 1986 (the "Tax Act") contains certain provisions that may limit the Company's ability to utilize net operating loss and tax credit carryforwards in any given year if certain events occur, including cumulative changes in ownership interests in excess of 50% over a three-year period. The Company has completed several financings since the effective date of the Tax Act, which, as of December 31, 1996, have resulted in ownership changes in excess of 50%, as defined under the Tax Act. The Company does not believe that such ownership changes will significantly impact the Company's ability to utilize the net operating loss and credit carryforward existing at December 31, 1996. There can be no assurance that ownership changes in future periods will not significantly limit the Company's use of net operating loss and tax credit carryforwards.

CERTAIN FACTORS THAT MAY AFFECT FUTURE RESULTS

The following important factors, among others, could cause actual results to differ materially from those contained in forward-looking statements made in this Annual Report on Form 10-K and presented elsewhere by management from time to time.

Early Stage of Development; Technological Uncertainty

Hybridon's potential pharmaceutical products are at various stages of research, preclinical testing or clinical development. There are a number of technological challenges that the Company must successfully address to complete any of its development efforts. To date, most of the Company's resources have been dedicated to applying oligonucleotide chemistry and cell biology to the research and development of potential pharmaceutical products based upon antisense technology. As in most drug discovery programs, the results of in vitro, tissue culture and preclinical studies by the Company may be inconclusive and may not be indicative of results that will be obtained in human clinical trials. In addition, results attained in early human clinical trials by the Company may not be indicative of results that will be obtained in later clinical trials. Neither the Company, nor to its knowledge, any other company has successfully completed human clinical trials of a product based on antisense technology, and there can be no assurance that any of the Company's products will be successfully developed.

The success of any of the Company's potential pharmaceutical products depends in part on the molecular target on the genetic material chosen as the site of action of the oligonucleotide. There can be no assurance that the Company's choice will be appropriate for the treatment of the targeted disease indication in humans or that mutations in the genetic material will not result in a reduction in or loss of the efficacy or utility of a Company product.

Uncertainty Associated with Clinical Trials

Before obtaining regulatory approvals for the commercial sale of any of its pharmaceutical products under development, the Company must undertake extensive and costly preclinical studies and clinical trials to demonstrate that such products are safe and efficacious. The results from preclinical studies and early clinical trials are not necessarily predictive of results that will be obtained in later stages of testing or development, and there can be no

assurance that the Company's clinical trials will demonstrate the safety and efficacy of any pharmaceutical products or will result in pharmaceutical products capable of being produced in commercial quantities at reasonable cost or in a marketable form.

Although the Company is conducting clinical trials of certain oligonucleotide compounds and is developing several oligonucleotide compounds on which it plans to file IND applications with the FDA and equivalent filings outside of the U.S., there can be no assurance that necessary preclinical studies on these compounds will be completed satisfactorily or that the Company otherwise will be able to make its intended filings. Further, there can be no assurance that the Company will be permitted to undertake and complete human clinical trials of any of the Company's potential products, either in the U.S. or elsewhere, or, if permitted, that such products will not have undesirable side effects or other characteristics that may prevent or limit their commercial use.

The rate of completion of the Company's human clinical trials, if permitted, will be dependent upon, among other factors, the rate of patient enrollment. Patient enrollment is a function of many factors, including the size of the patient population, the nature of the protocol, the availability of alternative treatments, the proximity to clinical sites and the eligibility criteria for the study. Delays in planned patient enrollment might result in increased costs and delays, which could have a material adverse effect on the Company. The Company or the FDA or other regulatory agencies may suspend clinical trials at any time if the subjects or patients participating in such trials are being exposed to unacceptable health risks.

Future Capital Needs; Uncertainty of Additional Funding

The Company's future capital requirements will depend on many factors, including continued scientific progress in its research, drug discovery and development programs, the magnitude of these programs, progress with preclinical and clinical trials, sales of DNA products and reagents to third parties manufactured on a custom contract basis by the Hybridon Specialty Products Division and the margins on such sales, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting and enforcing patent claims, competing technological and market developments, the ability of the Company to establish and maintain collaborative academic and commercial research, development and marketing relationships, the ability of the Company to obtain third-party financing for leasehold improvements and other capital expenditures and the costs of manufacturing scale-up and commercialization activities and arrangements.

Based on its current operating plan, the Company believes that its existing capital resources, together with the committed collaborative research and development payments from Searle, anticipated sales of the Hybridon Specialty Products Division and margins on such sales, which are expected to increase significantly over historic levels, and the net proceeds from the sale of the Notes and the interest earned thereon, will be adequate to fund the Company's capital requirements through at least the first quarter of 1998. The Company anticipates that it will be required to raise substantial additional funds through external sources, including through collaborative relationships and public or private financings, to support the Company's operations beyond that time. No assurance can be given that additional financing will be available, or, if available, that it will be available on acceptable terms. If additional funds are raised by issuing equity securities, further dilution to then existing stockholders will result. Additionally, the terms of any such additional financing may adversely affect the holdings or rights of then existing stockholders. If adequate funds are not available, the Company may be

required to curtail significantly one or more of its research, drug discovery or development programs, or obtain funds through arrangements with collaborative partners or others that may require the Company to relinquish rights to certain of its technologies, product candidates or products which the Company would otherwise pursue on its own. See "Item 1. Business -- Hybridon Drug Development and Discovery Programs."

History of Operating Losses and Accumulated Deficit

Hybridon has incurred net losses since its inception. At December 31, 1996, the Company's accumulated deficit was approximately $149.2 million. Such losses have resulted principally from costs incurred in the Company's research and development programs and from general and administrative costs associated with the Company's development. No revenues have been generated from sales of pharmaceutical products developed by the Company and no revenues from the sale of such products are anticipated for a number of years, if ever. The Company expects to incur additional operating losses over the next several years and expects cumulative losses to increase significantly as the Company's research and development and clinical trial efforts expand. The Company expects that losses will fluctuate from quarter to quarter and that such fluctuations may be substantial. Although the Company's Hybridon Specialty Products Division has begun to generate revenues from the sale of synthetic DNA products and reagents manufactured by it on a custom contract basis, there can be no assurance that demand for and margins on these products will not be lower than anticipated. The Company's ability to achieve profitability is dependent in part on obtaining regulatory approvals for its pharmaceutical products and entering into agreements for drug discovery, development and commercialization. There can be no assurance that the Company will obtain required regulatory approvals, enter into any additional agreements for drug discovery, development and commercialization or ever achieve sales or profitability.

Patents and Proprietary Rights

The Company's success will depend in part on its ability to develop patentable products and obtain and enforce patent protection for its products both in the U.S. and in other countries. The Company has filed and intends to file applications as appropriate for patents covering both its products and processes. However, the patent positions of pharmaceutical and biotechnology firms, including Hybridon, are generally uncertain and involve complex legal and factual questions. No assurance can be given that patents will issue from any pending or future patent applications owned by or licensed to Hybridon. Since patent applications in the U.S. are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature tend to lag behind actual discoveries by several months, the Company cannot be certain that it was the first creator of inventions covered by pending patent applications or that it was the first to file patent applications for such inventions. Further, there can be no assurance that the claims allowed under any issued patents will be sufficiently broad to protect the Company's technology. In addition, no assurance can be given that any issued patents owned by or licensed to the Company will not be challenged, invalidated or circumvented, or that the rights granted thereunder will provide competitive advantages to the Company.

The commercial success of the Company will also depend in part on its neither infringing patents issued to competitors or others nor breaching the technology licenses upon which the Company's products might be based. The Company's licenses of patents and patent applications impose various commercialization, sublicensing, insurance and other obligations on the Company. Failure of the Company to comply with these requirements could result in

termination of the license. The Company is aware of patents and patent applications belonging to competitors, and it is uncertain whether these patents and patent applications will require the Company to alter its products or processes, pay licensing fees or cease certain activities. In particular, competitors of the Company and other third parties hold issued patents and pending patent applications relating to antisense and other gene expression modulation technologies which may result in claims of infringement against the Company or other patent litigation. There can be no assurance that the Company will be able successfully to obtain a license to any technology that it may require or that, if obtainable, such technology can be licensed at a reasonable cost or on an exclusive basis. See "Item 1. Business -- Patents, Trade Secrets and Licenses."

The pharmaceutical and biotechnology industries have been characterized by extensive litigation regarding patents and other intellectual property rights. Litigation, which could result in substantial cost to the Company, may be necessary to enforce any patents issued or licensed to the Company and/or to determine the scope and validity of others' proprietary rights. The Company also may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, which could result in substantial cost to the Company, to determine the priority of inventions. Furthermore, the Company may have to participate at substantial cost in International Trade Commission proceedings to abate importation of products which would compete unfairly with products of the Company.

Hybridon engages in collaborations, sponsored research agreements and other agreements with academic researchers and institutions and government agencies. Under the terms of such agreements, third parties may have rights in certain inventions developed during the course of the performance of such collaborations and agreements.

The Company relies on trade secrets and proprietary know-how which it seeks to protect, in part, by confidentiality agreements with its collaborators, employees and consultants. There can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any breach or that the Company's trade secrets will not otherwise become known or be independently developed by competitors. See "Item 1. Business -- Patents, Trade Secrets and Licenses."

Risks Associated with Hybridon Specialty Products Division

Through its Hybridon Specialty Products Division, the Company manufactures oligonucleotide compounds on a custom contract basis for third parties. The results of operations of the Hybridon Specialty Products Division will be dependent upon the demand for and margins on these products, which may be lower than anticipated by the Company. The results of operations of the Hybridon Specialty Products Division also may be affected by the price and availability of raw materials. It is possible that Hybridon's manufacturing capacity may not be sufficient for production of oligonucleotides both for the Company's internal needs and for sale to third parties. The Company's manufacturing facility must comply with GMP and other FDA regulations. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Limited Manufacturing Capability."

The Company will be competing against a number of third parties, as well as the possibility of internal production by the Company's customers, in connection with the operations of the Hybridon Specialty Products Division. Many of these third parties are likely to have greater financial, technical and human resources than the Company. Key competitive factors will include the price and

quality of the products as well as manufacturing capacity and ability to comply with specifications and to fulfill orders on a timely basis. The Company may be required to reduce the cost of its product offerings to meet competition. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations -- Certain Factors That May Affect Future Results -- Competition." Failure to manufacture oligonucleotide compounds in accordance with the purchaser's specifications could expose the Company to breach of contract and/or product liability claims from the purchaser or the purchaser's customers. The Company has limited experience in sales, marketing and distribution and is relying in part upon the efforts of a third party, Perkin-Elmer, in connection with the marketing and sale of products by the Hybridon Specialty Products Division. See "Item 7. Management's Discussion and Analysis of Financial Conditions and Results of Operations -- Certain Factors That May Affect Future Results -- Absence of Sales and Marketing Experience."

Need to Establish Collaborative Commercial Relationships; Dependence on Partners

Hybridon's business strategy includes entering into strategic alliances or licensing arrangements with corporate partners, primarily pharmaceutical and biotechnology companies, relating to the development and commercialization of certain of its potential products. Although the Company is a party to corporate collaborations with Searle, Roche and Medtronic, there can be no assurance that these collaborations will be scientifically or commercially successful, that the Company will be able to negotiate additional collaborations, that such collaborations will be available to the Company on acceptable terms or that any such relationships, if established, will be scientifically or commercially successful. The Company expects that under certain of these arrangements, the collaborative partner will have the responsibility for conducting human clinical trials and the submission for regulatory approval of the product candidate with the FDA and certain other regulatory agencies. Should the collaborative partner fail to develop a marketable product, the Company's business may be materially adversely affected. There can be no assurance that the Company's collaborative partners will not be pursuing alternative technologies or developing alternative compounds either on their own or in collaboration with others, including the Company's competitors, as a means for developing treatments for the diseases targeted by these collaborative programs. The Company's business also will be affected by the performance of its corporate partners in marketing any successfully developed products within the geographic areas in which such partners are granted marketing rights. The Company's plan is to retain manufacturing rights for many of the products it may license pursuant to arrangements with corporate partners. However, there can be no assurance that the Company will be able to retain such rights on acceptable terms, if at all, or that the Company will have the ability to produce the quantities of product required under the terms of such

arrangements. See "Item 1. Business -- Hybridon Drug Development and Discovery Programs" and "-- Corporate Collaborations."

No Assurance of Regulatory Approval; Government Regulation

The Company's preclinical studies and clinical trials, as well as the manufacturing and marketing of the potential products being developed by it and the products sold by the Hybridon Specialty Products Division, are subject to extensive regulation by numerous federal, state and local governmental authorities in the U.S. Similar regulatory requirements exist in other countries where the Company intends to test and market its drug candidates. Preclinical studies of the Company's product development candidates are subject to GLP requirements and the manufacture of any products by the Company, including

products developed by the Company and products manufactured for third parties on a custom contract basis by the Hybridon Specialty Products Division, will be subject to GMP requirements prescribed by the FDA.

The regulatory process, which includes preclinical studies, clinical trials and post-clinical testing of each compound to establish its safety and effectiveness, takes many years and requires the expenditure of substantial resources. Delays may also be encountered and substantial costs incurred in foreign countries. There can be no assurance that, even after the passage of such time and the expenditure of such resources, regulatory approval will be obtained for any drugs developed by the Company. Data obtained from preclinical and clinical activities are subject to varying interpretations which could delay, limit or prevent regulatory approval by the FDA or other regulatory agencies. The Company, an IRB, the FDA or other regulatory agencies may suspend clinical trials at any time if the participants in such trials are being exposed to unacceptable health risks. Moreover, if regulatory approval of a drug is granted, such approval may entail limitations on the indicated uses for which it may be marketed. Failure to comply with applicable regulatory requirements can, among other things, result in fines, suspension of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecutions. FDA policy may change and additional government regulations may be established that could prevent or delay regulatory approval of the Company's potential products. In addition, a marketed drug and its manufacturer are subject to continual review, and subsequent discovery of previously unknown problems with a product or manufacturer may result in restrictions on such product or manufacturer, including withdrawal of the product from the market and withdrawal of the right to manufacture the product. All of the foregoing regulatory matters also will be applicable to development, manufacturing and marketing undertaken by any strategic partners or licensees of the Company. See "Item 1. Business -- Government Regulation."

Competition

There are many companies, both private and publicly traded, that are conducting research and development activities on technologies and products similar to or competitive with the Company's antisense technologies and proposed products. For example, many other companies are actively seeking to develop products, including antisense oligonucleotides, with disease targets similar to those being pursued by the Company. Some of these competitive products are in clinical trials. The Company believes that the industry-wide interest in investigating the potential of gene expression modulation technologies will continue and will accelerate as the techniques which permit the design and development of drugs based on such technologies become more widely understood. There can be no assurance that the Company's competitors will not succeed in developing products based on oligonucleotides or other technologies, existing or new, which are more effective than any that are being developed by the Company, or which would render Hybridon's antisense technologies obsolete and noncompetitive. Moreover, there currently are commercially available products for the treatment of many of the disease targets being pursued by the Company.

Competitors of the Company engaged in all areas of biotechnology and drug discovery in the U.S. and other countries are numerous and include, among others, pharmaceutical and chemical companies, biotechnology firms, universities and other research institutions. Many of the Company's competitors have substantially greater financial, technical and human resources than the Company. In addition, many of these competitors have significantly greater experience than the Company in undertaking preclinical studies and human clinical trials of new pharmaceutical products and obtaining FDA and other regulatory approvals of products for use in health care. Furthermore, if the Company is permitted to

commence commercial sales of products, it will also be competing with respect to manufacturing efficiency and marketing capabilities, areas in which it has limited or no experience. Accordingly, the Company's competitors may succeed in obtaining FDA or other regulatory approvals for products or in commercializing such products more rapidly than the Company. See "Item 1. Business -- Competition."

Limited Manufacturing Capability

While the Company believes that its existing production capacity will be sufficient to enable it to satisfy its current research needs and to support the Company's preclinical and clinical requirements for oligonucleotide compounds, the Company will need to purchase additional equipment to expand its manufacturing capacity in order to satisfy its future requirements, subject to obtaining regulatory approvals, for commercial production of its product candidates. In addition, Hybridon Specialty Products Division is using the Company's existing production capacity to custom contract manufacture synthetic DNA products for commercial sale. As a result, depending on the level of sales by the Hybridon Specialty Products Division, and the success of the Company's product development programs, Hybridon's manufacturing capacity may not be sufficient for production for both its internal needs and sales to third parties. In addition, in order to successfully commercialize its product candidates or achieve satisfactory margins on sales, the Company may be required to reduce further the cost of production of its oligonucleotide compounds, and there can be no assurance that the Company will be able to do so.

The manufacture of the Company's products is subject to GMP requirements prescribed by the FDA or other standards prescribed by the appropriate regulatory agency in the country of use. To the Company's knowledge, therapeutic products based on chemically-modified oligonucleotides have never been manufactured on a commercial scale. There can be no assurance that the Company will be able to manufacture products in a timely fashion and at acceptable quality and price levels, that it or its suppliers can manufacture in compliance with GMP or other regulatory requirements or that it or its suppliers will be able to manufacture an adequate supply of product. The Company has in the past relied in part and may in the future rely upon third party contractors in connection with the manufacture of some compounds. Reliance on such third parties entails a number of risks, including the possibility that such third parties may fail to perform on an effective or timely basis or fail to abide by regulatory or contractual restrictions applicable to the Company. See "Item 1. Business -- Manufacturing Technology and the Hybridon Specialty Products Division."

There are three sources of supply for the nucleotide building blocks used by the Company in its current oligonucleotide manufacturing process. This process is covered by issued patents either held by or licensed to these three companies. Therefore, these companies are likely the sole suppliers to Hybridon of these nucleotide building blocks. The inability of Hybridon to obtain these nucleotide building blocks from one of these suppliers could have a material adverse effect on Hybridon.

Absence of Sales and Marketing Experience

The Company expects to market and sell certain of its products directly and certain of its products through co-marketing or other licensing arrangements with third parties. The Company has limited experience in sales, marketing or distribution, and does not expect to establish a sales and marketing plan or direct sales capability with respect to the products being developed by it until such time as one or more of such products approaches marketing approval. In

addition, although the Company does have a limited direct sales capability with respect to the sales of custom contract manufactured DNA products to third parties by the Hybridon Specialty Products Division, the Company has entered into a sales and marketing arrangement with Perkin-Elmer with respect to such products and is reliant in part on the efforts of Perkin-Elmer to promote these products. In order to market the products being developed by it directly, the Company will be required to develop a substantial marketing staff and sales force with technical expertise and with supporting distribution capability. There can be no assurance that the Company will be able to build such a marketing staff or sales force, that the cost of establishing such a marketing staff or sales force will be justifiable in light of any product revenues or that the Company's direct sales and marketing efforts will be successful. In addition, if the Company succeeds in bringing one or more products to market, it may compete with other companies that currently have extensive and well-funded marketing and sales operations. There can be no assurance that the Company's marketing and sales efforts would enable it to compete successfully against such other companies. To the extent the Company enters into co- marketing or other licensing arrangements, any revenues received by the Company will be dependent in part on the efforts of third parties and there can be no assurance that such efforts will be successful. See "Item 1. Business -- Marketing Strategy."

No Assurance of Market Acceptance

Pharmaceutical products, if any, resulting from the Company's research and development programs are not expected to be commercially available for a number of years. There can be no assurance that, if approved for marketing, such products will achieve market acceptance. The degree of market acceptance will depend upon a number of factors, including the receipt of regulatory approvals, the establishment and demonstration in the medical community of the clinical efficacy and safety of the Company's products and their potential advantages over existing treatment methods and reimbursement policies of government and third-party payors. There is no assurance that physicians, patients, payors or the medical community in general will accept or utilize any products that may be developed by the Company.

Product Liability Exposure and Insurance

The use of any of the Company's potential products in clinical trials and the commercial sale of any products, including the products being developed by it and the DNA products and reagents manufactured and sold on a custom contract basis by the Hybridon Specialty Products Division, may expose the Company to liability claims. These claims might be made directly by consumers, health care providers or by pharmaceutical and biotechnology companies or others selling such products. Hybridon has product liability insurance coverage, and such coverage is subject to various deductibles. Such coverage is becoming increasingly expensive, and no assurance can be given that the Company will be able to maintain or obtain such insurance at reasonable cost or in sufficient amounts to protect the Company against losses due to liability claims that could have a material adverse effect on the Company.

Hazardous Materials

The Company's research and development and manufacturing activities involves the controlled use of hazardous materials, chemicals, viruses and various radioactive compounds. Although the Company believes that its safety procedures for handling and disposing of such materials comply with the standards prescribed by federal, state and local regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable

for any damages that result and any such liability could have a material adverse effect on the Company.

Uncertainty of Pharmaceutical Pricing and Adequate Reimbursement

The Company's ability to commercialize its pharmaceutical products successfully will depend in part on the extent to which appropriate reimbursement levels for the cost of such products and related treatment are obtained from government authorities, private health insurers and other organizations, such as health maintenance organizations ("HMOs"). Third-party payors are increasingly challenging the prices charged for medical products and services. Also the trend towards managed health care in the U.S. and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of health care services and products, as well as legislative proposals to reduce government insurance programs, may all result in lower prices for the Company's products. The cost containment measures that health care providers are instituting could affect the Company's ability to sell its products and may have a material adverse effect on the Company.

Uncertainty of Health Care Reform Measures

Federal, state and local officials and legislators (and certain foreign government officials and legislators) have proposed or are reportedly considering proposing a variety of reforms to the health care systems in the U.S. and abroad. The Company cannot predict what health care reform legislation, if any, will be enacted in the U.S. or elsewhere. Significant changes in the health care system in the U.S. or elsewhere are likely to have a substantial impact over time on the manner in which the Company conducts its business. Such changes could have a material adverse effect on the Company. The existence of pending health care reform proposals could have a material adverse effect on the Company's ability to raise capital. Furthermore, the Company's ability to commercialize its potential products may be adversely affected to the extent that such proposals have a material adverse effect on the business, financial condition and profitability of other companies that are prospective corporate partners with respect to certain of the Company's proposed products.

Attraction and Retention of Key Employees and Scientific Collaborators

The Company is highly dependent on the principal members of its management and scientific staff, including E. Andrews Grinstead, III, the Company's Chairman of the Board, President and Chief Executive Officer, and Sudhir Agrawal, the Company's Senior Vice President of Discovery and Chief Scientific Officer, the loss of whose services could have a material adverse effect on the Company. Furthermore, recruiting and retaining qualified scientific personnel to perform research and development work in the future will also be critical to the Company's success. There can be no assurance that the Company will be able to attract and retain such personnel on acceptable terms given the competition for experienced scientists among numerous pharmaceutical, biotechnology and health care companies, universities and non-profit research institutions.

The Company's anticipated growth and expansion into areas and activities requiring additional expertise, such as clinical testing, governmental approvals, production and marketing, are expected to require the addition of new management personnel and the development of additional expertise by

existing management personnel. The failure to acquire such services or to develop such expertise could have a material adverse effect on the Company.

The Company's success will depend in part on its continued ability to

develop and maintain relationships with independent researchers and leading academic and research institutions. The competition for such relationships is intense, and there can be no assurance that the Company will be able to develop and maintain such relationships on acceptable terms. The Company has entered into a number of such collaborative relationships relating to specific disease targets and other research activities in order to augment its internal research capabilities and to obtain access to the specialized knowledge or expertise of its collaborative partners. The loss of any such collaborative relationship could have an adverse effect on the Company's ability to conduct research and development in the area targeted by such collaboration. See "Item 1. Business -- Hybridon Drug Development and Discovery Programs" and "-- Academic and Research Collaborations."

Concentration of Ownership by Directors and Executive Officers

The Company's directors and executive officers and their affiliates beneficially own approximately 18.89% of the Company's outstanding Common Stock (including 4,217,857 shares issuable upon the exercise of outstanding warrants and options held by the Company's directors and executive officers and their affiliates which are exercisable within the 60-day period following February 28, 1997). As a result, these stockholders, if acting together, may have the ability to influence the outcome of corporate actions requiring stockholder approval. This concentration of ownership may have the effect of delaying or preventing a change in control of the Company.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

All financial statements required to be filed hereunder are filed as APPENDIX A hereto, are listed under Item 14(a), and are incorporated herein by this reference.

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

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

The response to this item is contained in part under the caption "Executive Officers and Significant Employees of the Company" in Part I of this Annual Report on Form 10-K and in part in the Company's Proxy Statement for the Annual Meeting of Stockholders to be held on May 19, 1997 (the "1997 Proxy Statement") under the caption "Proposal 1--Election of Directors," which section is incorporated herein by this reference.

Officers are elected on an annual basis and serve at the discretion of the Board of Directors.

ITEM 11. EXECUTIVE COMPENSATION.

The response to this item is contained in the 1997 Proxy Statement under the caption "Proposal 1--Election of Directors," which section is incorporated herein by this reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

The response to this item is contained in the 1997 Proxy Statement under the caption "Stock Ownership of Certain Beneficial Owners and Management," which section is incorporated herein by this reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

The response to this item is contained in the 1997 Proxy Statement under the caption "Certain Transactions," which section is incorporated herein by this reference.

PART IV

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

(a) The following documents are filed as APPENDIX A hereto and are included as part of this Annual Report on Form 10-K:

Financial Statements:
Report of Independent Public Accountants
Consolidated Balance Sheets
Consolidated Statements of Operations
Consolidated Statements of Stockholders' Equity (Deficit)
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements

(b) The Company is not filing any financial statement schedules as part of this Annual Report on Form 10-K because they are not applicable or the required information is included in the financial statements or notes thereto.

(c) The list of Exhibits filed as a part of this Annual Report on Form 10-K are set forth on the Exhibit Index immediately preceding such Exhibits, and is incorporated herein by this reference.

(d) REPORTS ON FORM 8-K. No reports on Form 8-K were filed during the last quarter of the Company's fiscal year ended December 31, 1996.

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.

HYBRIDON, INC.

By: /s/ E. ANDREWS GRINSTEAD, III
E. Andrews Grinstead, III

Chairman of the Board, President and
Chief Executive Officer

Date: March 24, 1997

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

SIGNATURE	TITLE	DATE
/s/ E. Andrews Grinstead, II - ---------- E. Andrews Grinstead, III	Chairman of the Board, President and Chief Executive Officer and Director (Principal Executive Officer)	March 24, 1997
/s/ Anthony J. Payne - ---------- Anthony J. Payne	Senior Vice President of Finance and Administration, International Operations, Treasurer, Secretary and Chief Financial Officer (Principal Financial and Accounting Officer)	March 24, 1997
/s/ Sudhir Agrawal - ---------- Sudhir Agrawal	Director	March 24, 1997
- ---------- J. Robert Buchanan	Director	March __, 1997
/s/ Mohamed El-Khereiji - ---------- Mohamed El-Khereiji	Director	March 24, 1997

/s/ Youssef El-Zein - ---------- Youssef El-Zein	Director	March 24, 1997
/s/ Nasser Menhall - ---------- Nasser Menhall	Director	March 24, 1997

/s/ Jerry A. Weisbach - ---------- Jerry A. Weisbach	Director	March 24, 1997
/s/ James B. Wyngaarden - ---------- James B. Wyngaarden	Director	March 24, 1997
/s/ Paul C. Zamecnik - ---------- Paul C. Zamecnik	Director	March 24, 1997

APPENDIX A

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REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Hybridon, Inc.:

We have audited the accompanying consolidated balance sheets of Hybridon, Inc. (a Delaware corporation in the development stage) and subsidiaries as of

December 31, 1995 and 1996, and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 1996 and for the period from May 25, 1989 (inception) to December 31, 1996. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Hybridon, Inc. and subsidiaries as of December 31, 1995 and 1996 and for the period from May 25, 1989 (inception) to December 31, 1996, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1996, in conformity with generally accepted accounting principles.

ARTHUR ANDERSEN LLP

Boston, Massachusetts
February 21, 1997 (except with respect to the matter discussed in Note 1, as to which the date is March 26, 1997)

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED BALANCE SHEETS

ASSETS

	DECEMBER 31, 1995	DECEMBER 31, 1996	PRO FORMA DECEMBER 31, 1996 (Unaudited) (See Note 1)
CURRENT ASSETS:			
Cash and cash equivalents	$ 5,284,262	$ 12,633,742	$ 59,633,742
Short-term investments	-	3,785,146	3,785,146
Prepaid expenses and other current assets	951,526	2,119,220	2,119,220
Total current assets	6,235,788	18,538,108	65,538,108
PROPERTY AND EQUIPMENT, AT COST:			
Leasehold improvements	1,965,754	9,257,516	9,257,516
Laboratory equipment	5,153,550	5,884,861	5,884,861
Equipment under capital leases	1,507,535	2,904,688	2,904,688
Office equipment	1,149,141	1,496,639	1,496,639
Furniture and fixtures	321,763	499,957	499,957
Construction-in-progress	3,236,330	2,193,400	2,193,400
	13,334,073	22,237,062	22,237,062
Less--Accumulated depreciation and amortization	4,202,543	6,596,294	6,596,294

	9,131,530	15,640,768	15,640,768
OTHER ASSETS:			
Restricted cash	1,025,856	437,714	437,714
Notes receivable from officers	308,133	317,978	317,978
Deferred financing costs and other assets	1,217,804	1,152,034	4,152,034
Investment in real estate partnership	1,698,448	5,450,000	5,450,000
	4,250,241	7,357,726	10,357,726
	$ 19,617,559	$ 41,536,602	$ 91,536,602

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES:			
Current portion of long-term debt and capital lease obligations	$ 418,713	$ 1,308,511	$ 1,308,511
Accounts payable	2,053,438	4,064,419	4,064,419
Accrued expenses	3,454,625	4,190,766	4,190,766
Deferred revenue	86,250	86,250	86,250
Amounts payable to related parties	12,500	-	-
Total current liabilities	6,025,526	9,649,946	9,649,946
LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS, NET OF CURRENT PORTION	1,145,480	9,031,852	9,031,852
9% CONVERTIBLE SUBORDINATED NOTES PAYABLE	-	-	50,000,000
COMMITMENTS (Notes 10, and 15)			
STOCKHOLDERS' EQUITY:			
Convertible preferred stock, $.01 par value- Authorized--23,026,323 shares at December 31, 1995 and no shares at December 31, 1996 Issued and outstanding-- 15,982,179 and no shares at December 31, 1995 and 1996, respectively (converted into 16,856,649 shares of common stock in February 1996)	159,822	-	-
Preferred stock, $.01 par value- Authorized--5,000,000 shares at December 31, 1996 Issued and outstanding--None	-	-	-
Common stock, $.001 par value- Authorized--100,000,000 shares Issued and outstanding-- 1,843,666 and 25,146,577 at December 31, 1995 and 1996, respectively	1,844	25,147	25,147
Additional paid-in capital	114,626,062	173,227,358	173,227,358
Deficit accumulated during the development stage	(102,341,175)	(149,193,775)	(149,193,775)
Deferred compensation	-	(1,203,926)	(1,203,926)
Total stockholders' equity	12,446,553	22,854,804	22,854,804
	$ 19,617,559	$ 41,536,602	$ 91,536,602

The accompanying notes are an integral part of these consolidated financial statements.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF OPERATIONS

	YEARS ENDED DECEMBER 31, 1994	1995	1996	CUMULATIVE FROM MAY 25, 1989 (INCEPTION) TO DECEMBER 31, 1996
REVENUES:				
Research and development	$ 1,032,083	$ 1,186,124	$ 1,419,389	$ 4,554,263
Product revenue	-	-	1,080,175	1,080,175
Royalty income	-	-	62,321	62,321
Interest income	134,828	218,749	1,446,762	2,141,617

	1,166,911	1,404,873	4,008,647	7,838,376
OPERATING EXPENSES:				
Research and development	20,024,310	29,684,707	39,390,525	118,631,900
General and administrative	6,677,717	6,094,085	11,346,670	36,789,868
Interest	69,045	172,757	124,052	1,610,383
	26,771,072	35,951,549	50,861,247	157,032,151
Net loss	$(25,604,161)	$(34,546,676)	$(46,852,600)	$(149,193,775)
PRO FORMA NET LOSS PER COMMON SHARE (Note 2(b))		$ (2.13)	$ (1.93)	
PRO FORMA WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING (Note 2(b))		16,195,100	24,260,702	

The accompanying notes are an integral part of these consolidated financial statements.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)

	CONVERTIBLE PREFERRED STOCK NUMBER OF SHARES	CONVERTIBLE PREFERRED STOCK $.01 PAR VALUE	COMMON STOCK NUMBER OF SHARES	COMMON STOCK $.001 PAR VALUE	ADDITIONAL PAID-IN CAPITAL
INITIAL ISSUANCE OF COMMON STOCK	-	$ -	668,500	$ 669	$ -
Issuance of Series A convertible preferred stock, net of cash issuance costs of $18,000	875,000	8,750	-	-	848,250
Issuance of Series B convertible preferred stock, net of cash issuance costs of $11,900	648,147	6,481	-	-	1,731,616
Issuance of common stock	-	-	667,300	667	-
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1990	1,523,147	15,231	1,335,800	1,336	2,579,866
Issuance of Series C convertible preferred stock, net of cash issuance costs of $23,197	520,000	5,200	-	-	2,571,603
Repurchase of common stock	-	-	(262,500)	(263)	-
Deferred compensation related to restricted stock awards	-	-	-	-	2,328,764
Amortization of deferred compensation	-	-	-	-	-
Compensation expense related to stock option grants	-	-	-	-	669,433
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1991	2,043,147	20,431	1,073,300	1,073	8,149,666
Issuance of Series C convertible preferred stock, net of cash issuance costs of $20,291	920,000	9,200	-	-	4,570,509
Issuance of common stock related to restricted stock awards	-	-	500,266	501	122,243
Issuance of common stock related to the exercise of stock options	-	-	173,075	173	3,165
Issuance of warrants	-	-	-	-	2,776,130
Deferred compensation related to stock options and restricted stock awards	-	-	-	-	2,249,428
Amortization of deferred compensation	-	-	-	-	-
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1992	2,963,147	29,631	1,746,641	1,747	17,871,141
Issuance of Series D convertible preferred stock in exchange for convertible promissory notes payable, including accrued interest, net of cash issuance costs of $113,955	1,891,757	18,918	-	-	9,581,633
Issuance of Series E convertible preferred stock, net of cash issuance costs of $61,251	1,379,310	13,793	-	-	9,924,954
Issuance of Series F convertible preferred stock, net of cash issuance costs of $2,097,604	2,039,000	20,390	-	-	18,272,006
Issuance of common stock related to the exercise of stock options	-	-	43,625	43	26,645
Reduction in deferred compensation due to stock option termination prior to vesting	-	-	-	-	(290,287)
Amortization of deferred compensation	-	-	-	-	-
Net loss	-	-	-	-	-

BALANCE, DECEMBER 31, 1993	8,273,214	82,732	1,790,266	1,790	55,386,092
Issuance of Series F convertible preferred stock, net of cash issuance costs of $79,677	584,500	5,845	-	-	5,759,478
Issuance of Series G convertible preferred stock, net of cash issuance costs of $1,006,841	1,591,512	15,915	-	-	11,709,340
Issuance of common stock related to the exercise of stock options	-	-	24,000	24	13,376
Cancellation of warrants	-	-	-	-	(68,000)
Reduction in deferred compensation due to stock option termination prior to vesting	-	-	-	-	(14,062)
Amortization of deferred compensation	-	-	-	-	-
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1994	10,449,226	104,492	1,814,266	1,814	72,786,224
Issuance of Series G convertible preferred stock, net of cash issuance costs of $2,409,926	5,532,953	55,330	-	-	41,798,368
Issuance of common stock related to the exercise of stock options	-	-	29,400	30	41,470
Amortization of deferred compensation	-	-	-	-	-
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1995	15,982,179	159,822	1,843,666	1,844	114,626,062
Issuance of common stock related to initial public offering, net of issuance costs of $ 5,268,756	-	-	5,750,000	5,750	52,225,494
Conversion of convertible preferred stock to common stock	(15,982,179)	(159,822)	16,856,649	16,857	142,965
Issuance of common stock related to the exercise of stock options	-	-	288,700	289	1,089,387
Issuance of common stock related to the exercise of warrants	-	-	407,562	407	3,176,334
Deferred compensation related to grants of common stock options to non-employees	-	-			1,967,116
Amortization of deferred compensation relating to grants of common stock options to non-employees	-	-	-	-	-
Net loss	-	-	-	-	-
BALANCE, DECEMBER 31, 1996	-	$ -	25,146,577	$ 25,147	$173,227,358

	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' EQUITY (DEFICIT)
INITIAL ISSUANCE OF COMMON STOCK	$ -	$ -	$ 669
Issuance of Series A convertible preferred stock, net of cash issuance costs of $18,000	-	-	857,000
Issuance of Series B convertible preferred stock, net of cash issuance costs of $11,900	-	-	1,738,097
Issuance of common stock	-	-	667
Net loss	(1,110,381)	-	(1,110,381)
BALANCE, DECEMBER 31, 1990	(1,110,381)	-	1,486,052
Issuance of Series C convertible preferred stock, net of cash issuance costs of $23,197	-	-	2,576,803
Repurchase of common stock	-	-	(263)
Deferred compensation related to restricted stock awards	-	(2,328,764)	-
Amortization of deferred compensation	-	727,738	727,738
Compensation expense related to stock option grants	-	-	669,433
Net loss	(6,648,899)	-	(6,648,899)
BALANCE, DECEMBER 31, 1991	(7,759,280)	(1,601,026)	(1,189,136)
Issuance of Series C convertible preferred stock, net of cash issuance costs of $20,291	-	-	4,579,709
Issuance of common stock related to restricted stock awards	-	-	122,744
Issuance of common stock related to the exercise of stock options	-	-	3,338
Issuance of warrants	-	-	2,776,130
Deferred compensation related to stock options and restricted stock awards	-	(2,249,428)	-
Amortization of deferred compensation	-	1,332,864	1,332,864
Net loss	(14,694,693)	-	(14,694,693)
BALANCE, DECEMBER 31, 1992	(22,453,973)	(2,517,590)	(7,069,044)
Issuance of Series D convertible preferred stock in exchange for convertible promissory notes payable, including accrued interest, net of cash issuance costs of $113,955	-	-	9,600,551
Issuance of Series E convertible preferred stock, net of cash issuance costs of $61,251	-	-	9,938,747
Issuance of Series F convertible preferred stock, net of cash issuance costs of $2,097,604	-	-	18,292,396
Issuance of common stock related to the exercise of stock options	-	-	26,688
Reduction in deferred compensation due to stock option termination prior to vesting	-	290,287	-
Amortization of deferred compensation	-	1,124,839	1,124,839
Net loss	(19,736,365)	-	(19,736,365)
BALANCE, DECEMBER 31, 1993	(42,190,338)	(1,102,464)	12,177,812
Issuance of Series F convertible preferred stock, net of cash issuance costs of $79,677	-	-	5,765,323
Issuance of Series G convertible preferred stock, net of cash issuance costs of $1,006,841	-	-	11,725,255
Issuance of common stock related to the exercise of stock options	-	-	13,400
Cancellation of warrants	-	-	(68,000)
Reduction in deferred compensation due to stock option termination prior to vesting	-	14,062	-
Amortization of deferred compensation	-	764,228	764,228
Net loss	(25,604,161)	-	(25,604,161)

BALANCE, DECEMBER 31, 1994	(67,794,499)	(324,174)	4,773,857
Issuance of Series G convertible preferred stock, net of cash issuance costs of $2,409,926	-	-	41,853,698
Issuance of common stock related to the exercise of stock options	-	-	41,500
Amortization of deferred compensation	-	324,174	324,174
Net loss	(34,546,676)	-	(34,546,676)
BALANCE, DECEMBER 31, 1995	(102,341,175)	-	12,446,553
Issuance of common stock related to initial public offering, net of issuance costs of $ 5,268,756	-	-	52,231,244
Conversion of convertible preferred stock to common stock	-	-	-
Issuance of common stock related to the exercise of stock options	-	-	1,089,676
Issuance of common stock related to the exercise of warrants	-	-	3,176,741
Deferred compensation related to grants of common stock options to non-employees	-	(1,967,116)	-
Amortization of deferred compensation relating to grants of common stock options to non-employees	-	763,190	763,190
Net loss	(46,852,600)	-	(46,852,600)
BALANCE, DECEMBER 31, 1996	$(149,193,775)	$(1,203,926)	$ 22,854,804

The accompanying notes are an integral part of these consolidated financial statements.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEARS ENDED DECEMBER 31,			CUMULATIVE FROM MAY 25, 1989 (INCEPTION) TO DECEMBER 31,
	1994	1995	1996	1996
CASH FLOWS FROM OPERATING ACTIVITIES:				
Net loss	$(25,604,161)	$(34,546,676)	$(46,852,600)	$(149,193,775)
Adjustments to reconcile net loss to net cash used in operating activities-				
Depreciation and amortization	1,110,167	2,023,553	2,393,751	6,697,735
Compensation on grant of stock options, warrants and restricted stock	764,228	324,174	763,190	7,807,731
Amortization of discount on convertible promissory notes payable	-	-	-	690,157
Amortization of deferred financing costs	34,000	-	-	216,732
Noncash interest on convertible promissory notes payable	-	-	-	260,799
Changes in assets and liabilities-				
Prepaid and other current assets	(292,710)	(769,562)	(1,167,693)	(2,119,219)
Notes receivable from officers	87,126	8,446	(9,845)	(317,978)
Amounts payable to related parties	(333,925)	(80,351)	(12,500)	(200,000)
Accounts payable and accrued expenses	2,781,934	483,585	2,747,122	8,255,185
Deferred revenue	2,917	-	-	86,250
Net cash used in operating activities	(21,450,424)	(32,556,831)	(42,138,575)	(127,816,383)
CASH FLOWS FROM INVESTING ACTIVITIES:				
Increase in short-term investments	-	-	(3,785,146)	(3,785,146)

Purchases of property and equipment	(3,656,640)	(4,889,624)	(8,902,989)	(21,802,710)
(Increase) decrease in restricted cash and other assets	(1,481,829)	(44,912)	401,990	(1,664,183)
Investment in real estate partnership	-	(1,698,448)	(3,751,552)	(5,450,000)
Net cash used in investing activities	(5,138,469)	(6,632,984)	(16,037,697)	(32,702,039)
CASH FLOWS FROM FINANCING ACTIVITIES:				
Proceeds from issuance of convertible preferred stock	19,775,578	41,853,698	-	96,584,154
Proceeds from issuance of common stock related to stock options and restricted stock grants	13,400	41,500	1,089,676	1,174,602
Net proceeds from issuance of common stock	-	-	52,231,244	52,355,324
Repurchase of common stock	-	-	-	(263)
Proceeds from notes payable	750,000	-	7,500,000	9,450,000
Proceeds from issuance of convertible promissory notes payable	-	-	-	9,191,744
Proceeds from long-term debt	-	-	-	662,107
Proceeds from issuance of common stock related to stock warrants	-	-	3,176,741	3,176,741
Proceeds from sale/leaseback	1,073,183	-	1,722,333	2,795,516
Payments on long-term debt and capital leases	(394,585)	(537,977)	(446,163)	(1,801,612)
(Increase) decrease in deferred financing costs	-	(278,927)	251,921	(436,149)
Net cash provided by financing activities	21,217,576	41,078,294	65,525,752	173,152,164
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(5,371,317)	1,888,479	7,349,480	12,633,742
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	8,767,100	3,395,783	5,284,262	-
CASH AND CASH EQUIVALENTS, END OF PERIOD	$ 3,395,783	$ 5,284,262	$ 12,633,742	$ 12,633,742

The accompanying notes are an integral part of these consolidated financial statements.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) ORGANIZATION

Hybridon, Inc. (the Company) was incorporated in the State of Delaware on May 25, 1989. The Company is engaged in the discovery and development of novel genetic medicines based primarily on antisense technology.

The Company is in the development stage. Since inception, the Company has devoted substantially all of its efforts toward product research and development and raising capital. Management anticipates that substantially all future revenues will be derived from the sale of proprietary biopharmaceutical products under development or to be developed in the future, and custom contract manufacturing of synthetic DNA products and reagent products (by the Hybridon Specialty Products Division (HSPD)), as well as from research and development revenues and fees and royalties derived from licensing of the Company's technology.

Accordingly, although the Company has begun to generate revenues from its custom contract manufacturing business, the Company is dependent on the proceeds from possible future sales of equity securities, debt financings and research and development collaborations in order to fund future operations.

On March 26, 1997, the Company entered into a binding Agreement to issue $50,000,000 of 9% convertible subordinated notes (the Notes). The closing on the issuance of the Notes is to occur in April 1997. Under the terms of the Notes, the Company must make semiannual interest payments on the outstanding principle balance through the maturity date of April 1, 2004. If the Notes are converted prior to April 1, 2000, the Noteholders are entitled to receive accrued interest from the date of the most recent interest payment through the conversion date. The Notes are subordinate to substantially all of the Company's existing indebtedness. The Notes are convertible at any time prior to the maturity date at a conversion price equal to $7.0125, subject to adjustment under certain circumstances, as defined.

Beginning April 1, 2000, the Company may redeem the Notes at its option for a 4.5% premium over the original issuance price provided that from April 1, 2000 to March 31, 2001, the Notes may not be redeemed unless the closing price of the common stock equals or exceeds 150% of the conversion price for a period of at least 20 out of 30 consecutive trading days and the Notes are redeemed within 60 days after such trading period. The premium decreases by 1.5% each year through March 31, 2003. Upon a change of control of the Company, as defined, the Company will be required to offer to repurchase the Notes at 150% of the original issuance price.

The unaudited pro forma consolidated balance sheet as of December 31, 1996 shows the financial position of the Company assuming that the Notes were issued on December 31, 1996.

In January 1997, the Company entered into a five year $1,169,000 lease with a leasing company to finance certain furniture and fixtures in the Cambridge facility. The lease bears interest at a rate of 13.7% and is payable in 60 equal monthly installments of principle and interest of approximately $26,500 through February 2002.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

(b) Pro Forma Net Loss per Common Share

Pro forma net loss per common share is computed using the weighted average number of shares of common stock outstanding during the period. Pursuant to the requirements of the Securities and Exchange Commission, common stock issued by the Company during the 12 months immediately preceding its initial public offering on February 2, 1996, plus shares of common stock that became issuable during the same period pursuant to the grant of common stock options and preferred and common stock warrants, has been included in the calculation of pro forma weighted average number of common shares outstanding for all periods presented (using the treasury-stock method and the initial public offering price of $10 per share). In addition, the calculation of the pro forma weighted average number of common shares outstanding also includes shares of common stock as if all shares of preferred stock were converted into common stock on the respective original dates of issuance.

(c) Principles of Consolidation

The accompanying consolidated financial statements include the results of the Company and its subsidiaries, Hybridon S.A. (Europe), a French corporation and Hybridon Canada, Inc. (an inactive majority-owned subsidiary). The consolidated financial statements also reflect the Company's 49% interest in MethylGene, Inc. (MethylGene), a Canadian corporation which is accounted for under the equity method (See Note 12). All material intercompany balances and transactions have been eliminated in consolidation.

(d) Cash Equivalents and Short-Term Investments

The Company applies Statement of Financial Accounting Standards (SFAS) No. 115, Accounting for Certain Investments in Debt and Equity Securities. Under SFAS No. 115, debt securities that the Company has the positive intent and ability to hold to maturity are reported at amortized cost and are classified as held-to-maturity securities. These securities include cash equivalents and short term investments. At December 31, 1995 and 1996, the Company has classified all investments as held-to-maturity. The Company considers all highly liquid investments with maturities of three months or less when purchased to be cash equivalents. Short-term investments mature within one year of the balance sheet date. Cash and cash equivalents and

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

(d) Cash Equivalents and Short-Term Investments (Continued)

short-term investments at December 31, 1995 and 1996 consisted of the following (at amortized cost, which approximates fair market value):

	DECEMBER 31,	
	1995	1996

Cash and Cash Equivalents-		
Cash and money market funds	$5,284,262	$10,144,367
U.S. government securities	-	2,489,375
Total Cash and Cash Equivalents	$5,284,262	$12,633,742
Short-Term Investments-		
U.S. government securities	$ -	$ 3,785,146

(e) Depreciation and Amortization

Depreciation and amortization are computed using the straight-line method based on the estimated useful lives of the related assets as follows:

ASSET CLASSIFICATION	ESTIMATED USEFUL LIFE
Laboratory equipment	5 Years
Leasehold improvements	Life of lease
Equipment under capital lease	5 Years
Office equipment	3-5 Years
Furniture and fixtures	5 Years

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Continued)

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

(f) Accrued Expenses

Accrued expenses on the accompanying consolidated balance sheets consist of the following:

	DECEMBER 31, 1995	1996
Payroll and related costs	$1,327,057	$1,593,451
Outside research and clinical costs	1,132,860	1,381,124
Professional and consulting fees	214,788	390,440
Construction costs	205,920	-
Other	574,000	825,751
	$3,454,625	4,190,766

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(g) Revenue Recognition

The Company has recorded revenue under the consulting and research agreements discussed in Notes 6 and 7. Revenue is recognized as earned on a straight-line basis over the term of the agreement, which approximates when work is performed and costs are incurred. Revenues from product sales are recognized when the products are shipped. Product revenue for the year ended December 31, 1996 represents revenues from the sale of DNA and reagent products manufactured on a custom contract basis by HSPD.

(h) Research and Development Expenses

The Company charges research and development expenses to operations as incurred.

(i) Patent Costs

The Company charges patent expenses to operations as incurred.

(j) Reclassifications

Certain amounts in the prior periods consolidated financial statements have been reclassified to conform with the current periods presentation.

(3) NOTES RECEIVABLE FROM OFFICERS

At December 31, 1995, and 1996 the Company had notes receivable, including accrued interest, from officers of $308,133, and $317,978 respectively. The notes bear interest at rates varying between 6% and 6.5% per annum and mature at various dates through April 2001.

(4) RESTRICTED CASH

At December 31, 1995, the Company classified $225,000 as restricted cash related to the lease of its manufacturing plant discussed in Note 5(b). The restricted cash was in the form of a two-year letter of credit held in escrow until June 1996 in favor of the lessor of the manufacturing facility. In addition at December 31, 1995 and 1996, the Company had $800,856 and $437,714, respectively, in restricted cash related to the capital lease obligations as discussed in Note 5(c). The Company's cash balances may become subject to restrictions in accordance with the terms of its note payable to a bank (see Note 5(a)).

(5) LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS

(a) Note Payable to a Bank

In December 1996, the Company entered into a four year $7,500,000 note payable with a bank. The note bears interest at either the bank's prime rate plus 1% or LIBOR plus 3.5% (9.25% at December 31, 1996), at the Company's election. The note is payable in 59

equal installments or $62,500 commencing on February 1, 1997 with a balloon payment of $3,812,500, due on January 1, 2002. The note contains certain financial covenants that require the Company to maintain minimum tangible net worth and minimum liquidity and prohibits the payment of dividends. The Company has secured the obligations under the note with a lien on all of its assets. If, at specified times, the Company's minimum liquidity is less than $15,000,000, $10,000,000, or $5,000,000, the Company is required to pledge cash collateral to the bank equal to 25%, 50% or 100%, respectively, of the then outstanding balance under the note, pursuant to a cash pledge agreement. The notes also contain certain non-financial covenants. Also, in connection with the note, the Company issued 5 year warrants to purchase 65,000 shares of common stock at an exercise price of $6.90 per share. These warrants are fully exercisable at December 31, 1996.

(5) LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS (Continued)

(b) Note Payable to Landlord

In December 1994, the Company issued a $750,000 promissory note to its landlord to fund specific construction costs associated with the development of its manufacturing plant in Milford, Massachusetts. The promissory note bears interest at 13% per annum and is to be paid in equal monthly installments of principal and interest over the remainder of the 10-year lease term.

(c) Capital Lease Obligations

The Company has entered into various capital leases for equipment. Under a lease line agreement with a leasing company, the Company can borrow up to $1,200,000. In 1994, the Company borrowed $1,073,000 under this agreement as a part of a sale/leaseback transaction. These amounts are subject to interest at an effective rate of 4.29% and are being paid in equal installments of principal and interest over 48-months through June 1998.

In connection with this lease agreement, the Company is required to maintain a certain amount of cash in escrow as collateral. At December 31, 1996, the Company had $437,714 in escrow related to the agreement.

In December 1996, the Company sold certain laboratory equipment to a leasing company, at its original cost of $1,722,333 under a $2,800,000 lease line. In connection with this transaction, the Company entered into a capital lease to lease the equipment from this leasing company for 48 monthly payments ranging from $36,169 to $49,948. The sale of the equipment resulted in a gain of $291,960 which has been offset against the cost of the asset in the accompanying consolidated balance sheet and will be amortized over the life of the lease.

(5) LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS (Continued)

Future minimum payments due under various notes payable and capital lease obligations are as follows at December 31, 1996:

CALENDAR YEAR	AMOUNT
1997	$ 1,495,389
1998	1,444,345
1999	1,420,324
2000	1,328,882
2001	841,832
Thereafter	4,112,956
Total minimum lease payments	10,643,728
Less--Amount representing interest	303,365
Principal obligations	10,340,363
Less--Current portion	1,308,511
	$ 9,031,852

(6) G.D. SEARLE & CO. AGREEMENT

In January 1996, the Company and G.D. Searle & Co. (Searle) entered into a collaboration relating to research and development of therapeutic antisense compounds directed at up to eight molecular targets in the field of inflammation/immunomodulation (the Searle Field).

Pursuant to the collaboration, the parties are conducting research and development relating to a compound directed at a molecular target in the Searle Field designated by Searle. In this project, Searle is funding certain research and development efforts by the Company, and each of Searle and the Company have committed certain of its own personnel to the collaboration. The initial phase of research and development activities relating to the initial target will be conducted through the earlier of (i) the achievement of certain product candidate milestones or (ii) 36 months after commencement of the collaboration, subject to early termination by Searle (although in any event Searle is required to pay 18 months of research and development funding). The parties may extend the initial collaboration by mutual agreement, including agreement as to additional research funding by Searle.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(6) G.D. SEARLE & CO. AGREEMENT (Continued)

In addition, Searle has the right, at its option, to designate up to six additional molecular targets in the Searle Field (the Additional Targets) for collaborative research and development with the Company on terms substantially consistent with the terms of the collaboration applicable to the initial molecular target. This right is exercisable by Searle with respect to each of the Additional Targets upon the payment by Searle of certain research payments (beyond the project-specific payments relating to the particular Additional Target) and the purchase of additional common stock from the Company by Searle (at the then fair market value). The aggregate amount to be paid by Searle for such research payments and equity investment in order to designate each of the Additional Targets is $10,000,000 per Additional Target. In the event that Searle designates all of the Additional Targets, the aggregate amount to be paid by Searle for research payments will be $24,000,000, and the aggregate amount to be paid by Searle in equity investment will be $36,000,000. If Searle has not designated all of the Additional Targets by the time it advances the product candidate for the initial molecular target to certain stages of preclinical development, Searle will be required to purchase an additional $10,000,000 of common stock (at the then fair market value) on specified dates in order to maintain its right to designate any of the Additional Targets that it has not yet designated. The payment for any such common stock will be creditable against the equity investment portion of the payments to be made by Searle with respect to the designation of any of the Additional Targets that Searle has not yet designated.

Searle also has the right, at its option, to designate a molecular target in the Searle Field to develop a therapeutic agent for cancer that acts through immunomodulation (the Searle Cancer Target) for collaborative research and development with the Company on terms substantially consistent with the terms of the collaboration applicable to the initial molecular target. At the time of such designation, Searle will be required to make certain research payments to the Company and purchase additional common stock from the Company (at the then fair market value). The aggregate amount to be paid by Searle for such research payments and equity investment will range from $12,000,000 (composed of $5,000,000 in research payments and $7,000,000 in equity investment) if the Searle Cancer Target is designated in 1997 to $26,000,000 (composed of $21,000,000 in research payments and $5,000,000 in equity investment) if the Searle Cancer Target is designated in 2000.

Searle has exclusive rights to commercialize any products resulting from the collaboration. If Searle determines, in its sole discretion, to commercialize a product, Searle will fund and perform preclinical tests and clinical trials of the product candidate and will be responsible for regulatory approvals for and marketing of the product. In certain instances and for specified periods of time, the Company has agreed to perform research and development work in the Searle Field exclusively with Searle. In addition, as to each product candidate, the Company will be entitled to milestone payments from Searle totaling up to an aggregate of $10,000,000 upon the achievement of certain development benchmarks. The Company also will be entitled to royalties from net sales of products resulting from the

(6) G.D. SEARLE & CO. AGREEMENT (Continued)

collaboration. Subject to satisfying certain conditions relating to its manufacturing capacities and capabilities, the Company will retain manufacturing rights, and Searle will be required to purchase its requirements of products from the Company on an exclusive basis at specified transfer prices. Upon a change in control of the Company, Searle would have the right to terminate the Company's manufacturing rights, although the royalty payable would be increased in such event.

Under the collaboration, in the event that Searle designates (and makes the required payments and equity investments for) all of the Additional Targets or in certain other instances relating to Hybridon's failure to satisfy certain requirements relating to its manufacturing capacities and capabilities, Searle will have the right, exercisable in its sole discretion, to require Hybridon to form a joint venture with Searle for the development of products in the Searle Field (other than products relating to molecular targets that have already been designated by Searle) to which each party will contribute $50,000,000 in cash, although the Company's cash contribution would be reduced by the value of the technology and other rights contributed by the Company to the joint venture. The Company and Searle would each own 50% of the joint venture, although Searle's ownership interest in the joint venture would increase based upon a formula to up to a maximum of 75% if the joint venture is established in certain instances relating to the Company's failure to satisfy certain requirements relating to its manufacturing capacities and capabilities.

As of December 31, 1996, the Company has received $400,000 in research and development revenues from Searle. Under the collaboration, Searle also purchased 1,000,000 shares of common stock in the Company's initial public offering of common stock at the initial public offering price as discussed in Note 13(b).

(7) F. HOFFMANN-LA ROCHE LTD. COLLABORATION

In December 1992, the Company and Roche entered into a collaboration involving the application of Hybridon's antisense oligonucleotide chemistry to the development of compounds for the treatment of hepatitis B, hepatitis C and human papilloma virus.

Under this collaboration, Roche funded research and development efforts relating to the collaboration and committed personnel of its own to the collaboration. In 1995, Roche notified the Company that it had selected an antisense oligonucleotide directed at hepatitis C as a lead compound for further development and made a milestone payment to the Company in connection with such designation. In the third quarter of 1996, Roche notified the Company that it had selected an antisense oligonucleotide directed at human papilloma virus as a lead compound for further development, and in the fourth quarter of 1996, made a milestone payment to the Company in connection with such designation. At such time, Roche also notified the Company that Roche had elected not to continue the hepatitis B

(7) F. HOFFMANN-LA ROCHE LTD. COLLABORATION (Continued)

program under the research and development collaboration. As a result, in light of the selection by Roche of lead compounds directed at hepatitis C and human papilloma virus for further development and its determination to discontinue the hepatitis B program, Roche notified the Company that Roche was exercising its option to terminate the research and development phase of the collaboration as of March 31, 1997. The Company and Roche are engaged in ongoing discussions as to the manner in which they will collaborate in connection with the further development of the two antisense oligonucleotides that have been selected by Roche as lead compounds.

The Company had licensed to Roche any products resulting from the collaboration on a royalty-bearing, worldwide exclusive basis. Subject to compliance with certain production cost requirements, Roche is required to purchase from the Company, and the Company is required to supply to Roche, Roche's requirements of products at specified transfer prices. The Company has recorded $1,032,083, $1,186,124, and $1,019,389 of research and development revenue related to this collaboration in the years ended December 31, 1994, 1995, and 1996, respectively.

In conjunction with the Roche Collaboration, Roche purchased 818,390 shares of common stock for $6,000,000. Roche was also issued five-year warrants for the purchase of 551,724 shares of common stock at an initial price of $11.50 per share, such exercise price increases commencing on August 12, 1995 on an annual basis at a compound rate of 25%. At December 31, 1996, the exercise price of these warrants are $17.969 per share. The warrants expire on February 12, 1998 (subject to early expiration if the Roche Collaboration is terminated).

(8) MEDTRONIC, INC. COLLABORATIVE STUDY AGREEMENT

In May 1994, the Company and Medtronic, Inc. (Medtronic) entered into a collaborative study agreement (the Medtronic Agreement) involving the development of antisense compounds for the treatment of Alzheimer's disease and a drug delivery system to deliver such compounds into the central nervous system. The Company will be responsible for the development of, and hold all rights to, any drug developed pursuant to this collaboration, and Medtronic will be responsible for the development of, and hold all rights to, any delivery system developed pursuant to this collaboration. The parties may extend this collaboration by mutual agreement to other neurodegenerative disease targets. The research and development to be conducted is determined and supervised by a committee comprised of an equal number of designees of the Company and Medtronic. As part of the Medtronic Agreement, Medtronic purchased 658,333 shares of common stock for $5,000,000. In addition, the Company issued to Medtronic, Inc. a warrant expiring on May 10, 1997 to purchase 53,333 shares of common stock at $7.50 per share.

(9) LICENSING AGREEMENT

The Company has entered into a licensing agreement with the Worcester Foundation for Biomedical Research, Inc. (the Worcester Foundation),

under which the Company has received exclusive licenses to technology in certain patents and patent applications. The Company is required to make royalty payments based on future sales of products employing the technology or falling under claims of a patent, as well as a specified percentage of sublicense income received related to the licensed technology. Additionally, the Company is required to pay an annual maintenance fee through the life of the patents. In addition, in the year ended December 31, 1993, the terms of the license agreement were amended and, in conjunction with such amendment, the Company agreed to make a $500,000 contribution to the Worcester Foundation. The Company paid $210,000 in both 1993 and 1994; the remaining $80,000 was paid in 1995. The Company expensed the $500,000 contribution in the year ended December 31, 1993.

(10) PHARMACIA BIOTECH, INC. AGREEMENT

In December 1994, the Company and Pharmacia Biotech, Inc. (Pharmacia) entered into a collaboration involving the design and development of a large-scale oligonucleotide synthesis machine. Following completion of the machine, the collaboration expired in December 1996, and Pharmacia retained the right to sell the machine to third parties, subject to an obligation to pay the Company royalties on such third party sales. For the year ended December 31, 1996, the Company has received $62,321 of royalty income related to such third party sales.

(11) PERKIN-ELMER CORPORATION SUPPLY AGREEMENT

In September 1996 the Company and the Applied Biosystems Division of Perkin-Elmer signed a four year sales and supply agreement under which Perkin-Elmer agreed to refer potential customers to HSPD for the manufacture of custom oligonucleotides and the Company agreed that amidites for the manufacture of these oligonucleotides are purchased from Perkin-Elmer and a percentage of the sales price will be paid to Perkin-Elmer. In addition, Perkin-Elmer licensed to the Company its oligonucleotide synthesis patents and agreed to discuss a future collaboration with respect to the development, marketing and distribution of the Company's proprietary intermediates.

(12) INVESTMENT IN METHYLGENE, INC.

In January 1996, the Company and certain institutional investors formed a Quebec company, MethylGene, Inc. (MethylGene) to develop and market certain compounds and procedures to be agreed upon by the Company and MethylGene.

(12) INVESTMENT IN METHYLGENE, INC. (Continued)

The Company has granted to MethylGene exclusive worldwide licenses and sublicenses in respect of certain technology relating to the methylgene fields. These fields are defined as (i) antisense compounds to inhibit DNA methyltransferase for the treatment of cancers, (ii) other methods of inhibiting DNA methyltransferase for the treatment of any indications, and (iii) antisense compounds to inhibit a second molecular target other than DNA methyltransferase for the treatment of cancers, to be agreed upon by the Company and MethylGene. In addition, the Company and MethylGene have entered into a supply agreement pursuant to which

MethylGene is obligated to purchase from the Company all required formulated bulk oligonucleotides at specified transfer prices.

The Company acquired a 49% interest in MethylGene for approximately $734,000, and the Canadian investors acquired a 51% interest in MethylGene for a total of approximately $5,500,000. The institutional investors have the right to exchange all (but not less than all) of their shares of stock in MethylGene for an aggregate of 500,000 shares of Hybridon common stock (subject to adjustment for stock splits, stock dividends and the like). This option is exercisable only during a 90-day period commencing on the earlier of the date five years after the closing of the institutional investors' investment in MethylGene or the date on which MethylGene ceases operations. This option terminates sooner if MethylGene raises certain additional amounts of equity or debt financing or if MethylGene enters into a corporation collaboration that meets certain requirements. The Company is accounting for its investment in MethylGene under the equity method and, due to the existence of the investors exchange rights, the Company has recorded 100% of MethylGene's losses in the accompanying consolidated statement of operations.

(13) STOCKHOLDERS' EQUITY

(a) Common Stock

The Company has 100,000,000 authorized shares of common stock, $.001 par value, of which 25,146,577 shares were issued and outstanding at December 31, 1996. Upon the consummation of the Company's initial public offering of common stock in February 1996 all outstanding shares of preferred stock converted into 16,856,649 shares of common stock.

(b) Initial Public Offering

On February 2, 1996, the Company completed its initial public offering of 5,750,000 shares of common stock at $10.00 per share. The sale of common stock resulted in net proceeds to the Company of approximately $52,231,000 after deducting expenses related to the offering.

(13) STOCKHOLDERS' EQUITY (Continued)

(c) Warrants

The Company has the following warrants outstanding for the purchase of common stock:

EXPIRATION DATE	SHARES	EXERCISE PRICE PER SHARE
February 12, 1998	551,724	$17.97
March 31, 1998- October 25, 2000	4,769,670	10.00

November 10, 1997	350,000	9.50
May 10, 1997- February 28, 2000	955,459	7.50
December 31, 2001	65,000	6.90
September 16, 1997	603,689	5.50
	7,295,542	
Average price per share		$ 9.85

In connection with the Roche Collaboration, the Company issued Roche five-year warrants for the purchase of 551,724 shares of common stock at an initial exercise price of $11.50 per share, such exercise price increases commencing on August 12, 1995 on an annual basis at a compound rate of 25% ($17.97 at December 31, 1996). The warrants expire on February 12, 1998, subject to earlier expiration if the Roche Collaboration is terminated.

In connection with the Medtronic Agreement, the Company issued Medtronic, Inc. a three-year warrant for the purchase of 53,333 shares of common stock at $7.50 per share.

As a component of the sale of preferred stock in 1994 and 1995, the Company issued to the investors in such offering warrants for the purchase of 2,927,124 shares of common stock at $8.00 to $10.00 per share. Warrants to purchase 1,656,910 shares of common stock at an exercise price of $10.00 per share expire on March 31, 1998, and the remaining warrants for the purchase of 1,270,214 shares of common stock at an exercise price of $8.00 per share expire on October 25, 1996. During 1996, 396,336 of the $8.00 warrants were exercised and the unexercised $8.00 warrants expired on October 25, 1996.

(13) STOCKHOLDERS' EQUITY (Continued)

(c) Warrants (Continued)

Five-year warrants to purchase 1,843,100 shares of common stock at $10.00 per share were issued in 1994 and 1995 as a component of the compensation for services of several placement agents of the Company's convertible preferred stock. Of these warrants, 1,521,674 were issued to a company that is controlled by two directors of the Company (See Note 14(b)). The remaining 321,426 warrants were issued to various other companies that acted as placement agents.

All of the warrants included in the aforementioned table are exercisable as of December 31, 1996 except for the warrants to purchase 500,000 shares at $10.00 per share which expire on February 4, 1999; these warrants became exercisable subsequent to December 31, 1996.

In addition, warrants for common stock may be issued under a certain consulting agreement if the Company meets certain product registration requirements in any of certain European countries prior to December 31, 1997. These warrants have not been included in the aforementioned table.

(d) Stock Options

In 1990 and 1995, the Company established the 1990 Stock Option Plan (the 1990 Option Plan) and the 1995 Stock Option Plan (the 1995 Option Plan), respectively, which provide for the grant of incentive stock options and nonqualified stock options. Options granted under these plans vest over various periods and expire no later than 10 years from the date of grant. However, under the 1990 Option Plan in the event of a change in control (as defined in the 1990 Plan), the exercise dates of all options then outstanding shall be accelerated in full and any restrictions on exercising outstanding options issued pursuant to the 1990 Option Plan shall terminate. In October 1995, the Company terminated the issuance of additional options under the 1990 Option Plan. As of December 31, 1996, options to purchase a total of 3,356,840 shares of common stock remained outstanding under the 1990 Option Plan.

A total of 3,500,000 shares of common stock may be issued upon the exercise of options granted under the 1995 Option Plan. The maximum number of shares with respect to which options may be granted to any employee under the 1995 Option Plan shall not exceed 500,000 shares of common stock during any calendar year. The Compensation Committee of the Board of Directors has the authority to select the employees to whom options are granted and determine the terms of each option, including (i) the number of shares of common stock subject to the option; (ii) when the option becomes exercisable; (iii) the option exercise price, which, in the

(13) STOCKHOLDERS' EQUITY (Continued)

(d) Stock Options (Continued)

case of incentive stock options, must be at least 100% (110% in the case of incentive stock options granted to a stockholder owning in excess of 10% of the Company's common stock) of the fair market value of the common stock as of the date of grant; and (iv) the duration of the option (which, in the case of incentive stock options, may not exceed 10 years). As of December 31, 1996, options to purchase a total of 2,280,100 shares of common stock remained outstanding under the 1995 Option Plan.

In October 1995, the Company adopted the 1995 Director Stock Option Plan (the Director Plan). A total of 250,000 shares of common stock may be issued upon the exercise of options granted under the Director Plan. Under the terms of the Director Plan, options to purchase 5,000 shares of common stock were granted to eligible directors upon the closing of the Company's initial

public offering at the fair market value of the common stock on the date of the closing. Thereafter, options to purchase 5,000 shares of common stock will be granted to each eligible director on May 1 of each year commencing in 1997. All options will vest on the first anniversary of the date of grant or, in the case of annual options, on April 30 of each year with respect to options granted in the previous year. As of December 31, 1996, options to purchase a total of 45,000 shares of common stock remained outstanding under the Director Plan.

(13) STOCKHOLDERS' EQUITY (Continued)

(d) Stock Options (Continued)

All stock option activity since inception is summarized as follows:

	NUMBER OF SHARES	EXERCISE PRICE PER SHARE	WEIGHTED AVERAGE PRICE PER SHARE
Options granted	334,700	$ -	$ -
Options exercised	(167,300)	-	-
Outstanding, December 31, 1990	167,400	-	-
Options granted	8,500	-	-
Options terminated	(2,700)	-	-
Outstanding, December 31, 1991	173,200	-	-
Options granted	962,702	.25 - 5.00	1.98
Options exercised	(173,075)	- 1.00	.02
Options terminated	(24,325)	.50 - 1.00	.56
Outstanding, December 31, 1992	938,502	- 5.00	2.01
Options granted	1,440,538	3.50 - 12.50	8.38
Options exercised	(43,625)	- 1.00	.61
Options terminated	(126,375)	- 10.00	.79
Outstanding, December 31, 1993	2,209,040	- 12.50	6.26
Options granted	672,500	5.00 - 7.00	5.33
Options exercised	(24,000)	- 1.00	.56
Options terminated	(75,000)	- 5.00	3.83
Outstanding, December 31, 1994	2,782,540	- 12.50	6.10
Options granted	2,035,538	7.50 - 10.00	7.55
Options exercised	(29,400)	.50 - 5.00	1.41
Options terminated	(1,097,641)	.50 - 12.50	9.82
Outstanding, December 31, 1995	3,691,037	- 10.00	5.83
Options granted	2,380,100	5.00 - 13.12	9.91
Options exercised	(288,700)	- 7.50	3.77
Options terminated	(100,497)	5.00 - 11.57	8.04
Outstanding, December 31, 1996	5,681,940	$ .25 - 13.12	$7.61
Exercisable, December 31, 1996	3,114,650	$ .25 - 11.57	$6.51

(13) STOCKHOLDERS' EQUITY (Continued)

(d) Stock Options (Continued)

In October 1995, the Financial Accounting Standards Board issued SFAS No. 123, Accounting for Stock-Based Compensation. SFAS No. 123 requires the measurement of the fair value of stock options or warrants to be included in the statement of operations or disclosed in the notes to financial statements. The Company has determined that it will continue to account for stock-based compensation for employees under Accounting Principles Board Opinion No. 25 and elect the disclosure-only alternative under SFAS No. 123. The Company has recorded compensation expense of $763,190 for options granted to non-employees. In addition, the Company has recorded $1,203,926 of deferred compensation related to these grants which will be amortized over the vesting period of the options.

Options and warrants granted in 1995 and 1996 have been valued using the Black-Scholes option pricing model prescribed by SFAS No. 123. The weighted-average assumptions used for the year ended December 31, 1995 and 1996 are as follows:

	DECEMBER 31,	
	1995	1996
Risk free interest rate	6.41%	6.14%
Expected dividend yield	-	-
Expected lives	6 Years	6 Years
Expected volatility	60%	60%

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions including expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Continued)

(13) STOCKHOLDERS' EQUITY (Continued)

(d) Stock Options (Continued)

Had compensation cost for these plans been determined consistent with SFAS No. 123, the Company's net loss and pro forma net loss per common share would have been affected as follows:

		DECEMBER 31, 1995	1996
Net Loss:	As Reported	$(34,546,676)	$(46,852,600)
	Pro Forma	$(41,447,381)	$(52,890,455)
Net Loss Per Common Share:	As Reported	$ (2.13)	$ (1.93)
	Pro Forma	$ (2.56)	$ (2.18)

(e) Employee Stock Purchase Plan

In October 1995, the Company adopted the 1995 Employee Stock Purchase Plan (the Purchase Plan), under which up to 500,000 shares of common stock may be issued to participating employees of the Company or its subsidiaries. All full-time employees of the Company, except those who would immediately after the grant own 5% or more of the total combined voting power or value of the stock of the Company or any subsidiary, are eligible to participate.

On the first day of a designated payroll deduction period (the Offering Period), the Company will grant to each eligible employee who has elected to participate in the Purchase Plan an option to purchase shares of common stock as follows: the employee may authorize an amount (a whole percentage from 1% to 10% of such employee's regular pay) to be deducted by the Company from such pay during the Offering Period. On the last day of the Offering Period, the employee is deemed to have exercised the option, at the option exercise price, to the extent of accumulated payroll deductions. Under the terms of the Purchase Plan, the option price is an amount equal to 85% of the fair market value per share of the common stock on either the first day or the last day of the Offering Period, whichever is lower. In no event may an employee purchase in any one Offering Period a number of shares which is more than 15% of the employee's annualized base pay divided by 85% of the market value of a share of common stock on the commencement date of the Offering Period. The Compensation Committee may, in its discretion, choose an Offering Period of 12 months or less for each of the Offerings and choose a different Offering Period for each Offering. No shares have been issued under the Plan.

(14) COMMITMENTS

(a) Operating Leases

The Company has entered into a lease for a production plant in Milford, Massachusetts. The lease has a 10-year term, which commenced on July 1, 1994, with certain extension options. In addition, the Company entered into a nine-year lease for office space in Paris, France, commencing on May 1, 1994. The Company previously occupied office and laboratory space at the Massachusetts Biotechnology Research Park in Worcester, Massachusetts. The Company's extended lease agreement expired in February 1997, at which time the Company moved to a new facility, described below.

On February 4, 1994, the Company entered into a lease for an approximately 90,000-square-foot building in Cambridge, Massachusetts. In 1996, this lease was amended as discussed below and is herein referred to as the Cambridge Lease. The Cambridge Lease is with a partnership that is affiliated with three directors of the Company. The Cambridge Lease has an initial term of 10 years, commencing February 1, 1997, and may be extended for three additional five-year terms at the option of the Company. The Cambridge Lease provides for annual rent of $37.79 per square foot for the first five years and $41.57 per square foot for the second five years. As compensation for arranging this lease, the Company issued Pillar Limited (see Note 14(b)) five-year warrants for the purchase of 500,000 shares of the Company's common stock at an exercise price of $10.00 per share. These warrants become exercisable subsequent to December 31, 1996 and are exercisable through February 4, 1999.

Under the terms of the Cambridge Lease, the Company elected to treat $5,450,000 of its payments for a portion of the costs of the construction of the leased premises (primarily relating to tenant improvements) as contributions to the capital of the Cambridge landlord in exchange for a limited partnership interest in the Cambridge landlord (the Partnership Interest). The Company's Partnership Interest represents a 32.15% interest in the Cambridge Landlord. The Company's right to receive distributions of cash generated from operations or from any sale or refinancing of the property would be subordinate to the distribution to certain other limited partners of priority amounts currently totaling approximately $6,500,000 (approximately $3,500,000 of which is subject to annual increase at a rate of between 12% and 15% as a result of a cumulative return to one of the limited partners of the Cambridge Landlord). In the case of a sale or refinancing of the property, after payment of the priorities described in the preceding sentence, the Company would be entitled to a return of its capital contribution and, thereafter, to its pro rata share of the remaining funds available for distribution. The Company has the right, for a period of three years following completion of the building, to sell the Partnership Interest back to certain limited partners of the Cambridge Landlord for a price equal to the greater of

(14) COMMITMENTS (Continued)

(a) Operating Leases (Continued)

(i) the total paid for the Partnership Interest ($5,450,000) or (ii) the fair market value of the Partnership Interest at the time. The assets of these limited partners are limited to their investment in the Cambridge Landlord.

Future approximate minimum rent payments as of December 31, 1996, under the lease agreements discussed above are as follows:

CALENDAR YEAR	AMOUNT
1996	$ 4,072,000
1997	4,091,000
1998	4,109,000
2000	4,118,000
2001	4,127,000
Thereafter	20,930,000
	$41,447,000

During the years ended December 31, 1994, 1995, 1996, facility rent expense was approximately $1,142,000, $2,142,000, and $2,352,000 respectively.

(b) Consulting Agreements with Affiliates of Stockholders and Directors

The Company has entered into consulting agreements, stock placement agreements and an advisory agreement with several companies that are controlled by two shareholders and directors of the Company. The terms of the agreements with the affiliated companies, S.A. Pillar Investment N.V. (Pillar Investment), Pillar S.A. (formerly Commerce Consult S.A.) and Pillar Investment Limited (formerly Ash Properties Limited) (Pillar Limited), are described below.

In March 1994, the Company entered into a consulting agreement with Pillar S.A., which was amended in March 1995 (the 1994 Pillar Consulting Agreement). Under the 1994 Pillar Consulting Agreement, the Company agreed to pay to Pillar S.A. cash compensation for financial advisory and managerial services in connection with the Company's overseas operations, including support services in connection with contracts, agreements and arrangements with the Agence Nationale de Recherches sur le SIDA (ANRS), and for overhead costs and reimbursement of certain authorized out-of-pocket expenditures. The Company is

(14) COMMITMENTS (Continued)

(b) Consulting Agreements with Affiliates of Stockholders and Directors (Continued)

committed to pay Pillar S.A. a monthly fee of approximately $96,000 with respect to this agreement. The agreement expires on February 28, 1997. For the years ended December 31, 1994, 1995 and 1996, the Company had expensed $830,000, $1,226,000 and $1,106,000 under this consulting agreement, respectively.

In connection with the 1994 Pillar Consulting Agreement, the Company issued to Pillar S.A. two, five-year warrants to purchase up to 200,000 shares of the Company's common stock. The first warrant was issued on March 1, 1994 at an exercise price of $10.00 per share and will expire on February 28, 1999. This warrant vests in four equal quarterly installments in arrears commencing on March 1, 1994. The second warrant was issued on March 1, 1995 at an exercise price of $7.50 per share and will expire on February 28, 2000 and began vesting in four equal quarterly installments in arrears commencing on June 1, 1995.

The 1994 Pillar Consulting Agreement also provides that if the Company obtains all necessary governmental and regulatory approvals for the commercial sale of an antisense drug for the treatment of AIDS and HIV infection (the Drug) in one or more of certain specified European countries prior to December 31, 1997, the Company will issue Pillar S.A. a five-year warrant to purchase a number of shares of common stock equal to 25,000 shares for each quarter sooner than the last quarter of 1997 in which the Company has approval for commercial sale of the Drug. The exercise price will be equal to the average closing price of a share of the Company's common stock for the 20 trading days preceding the last day of the quarter preceding the quarter in which the Drug is registered, or, if the Company's common stock is not publicly traded, the fair market value of one share of common stock as determined by the Company's Board of Directors. The Company will expense the fair market value of these warrants as they are earned by Pillar S.A. These warrants have not been included in the table in Note 13(c).

All of the warrants issued to Pillar S.A. under the 1994 Pillar Consulting Agreements and certain other warrants previously issued to Pillar S.A. provide that within 15 days after the date of any exercise, in full or in part, Pillar S.A. will pay to the Company an amount in cash equal to the lesser of (i) 50% of all amounts paid to Pillar S.A. as compensation under the various Pillar S.A. consulting agreements and (ii) the positive difference, if any, between the aggregate fair market value of the shares of common stock purchased upon such exercise and the aggregate exercise price for such shares.

(14) COMMITMENTS (Continued)

(b) Consulting Agreements with Affiliates of Stockholders and Directors (Continued)

On September 9, 1994, the Company entered into modifications to its arrangements with Pillar S.A. and its affiliates, including: (i) a reduction in the exercise price of certain warrants previously issued to $10.00 per share; (ii) an amendment to the terms of each of the warrants issued to Pillar S.A. and its affiliates described above to provide for cashless exercise in connection with a sale or change in control of the Company; (iii) a grant of additional five-year warrants (the "Additional Pillar Warrants") to purchase 114,000 shares of Common Stock at an exercise price of $10.00 per share; and (iv) an amendment to the 1994 Pillar Consulting Agreement to provide for (a) a fixed term of three years and (b) a right of first negotiation for Pillar S.A. to provide seed financing for any spin-offs by the Company which do not involve or relate to antisense therapeutic compounds.

On July 8, 1995, the Company entered into an agreement (the Pillar Europe Agreement) with Pillar S.A. pursuant to which Pillar S.A. agreed to provide to the Company certain consulting, advisory and related services and serve as the Company's exclusive agent in connection with potential corporate partnerships in Europe and as a nonexclusive placement agent of the Company in connection with future private placements of securities of the Company for a period of two years. As discussed below, the Pillar Europe Agreement was significantly amended on November 1, 1995.

The Company and Pillar S.A. agreed to modify the Pillar Europe Agreement to provide that (i) Pillar would cease to serve as the Company's exclusive agent in connection with potential corporate partnerships in Europe but would continue to serve as a nonexclusive agent in such respect; (ii) Pillar would receive a retainer of $26,470 per month for the balance of the term of the Pillar Europe Agreement; (iii) certain fees to be received by Pillar in connection with European license or collaboration agreements would only be payable to Pillar in connection with potential collaborations with five specified French pharmaceutical companies; and (iv) any compensation payable to Pillar S.A. in connection with its services with respect to other corporate collaborations or any placements of securities would be negotiated on a case-by-case basis and would be subject to the approval of the independent members of the Board of Directors of the Company. In consideration of such modification, the Company paid Pillar a fee totaling $300,000.

Pillar Limited acted as a placement agent for the Company for certain sales of convertible preferred stock outside the United States and, in addition, provided the Company with certain financial advisory services with respect to the sale of such preferred stock outside the United States. In connection with such services, Pillar earned fees of $492,604 and $2,020,751 in the

(14) COMMITMENTS (Continued)

(b) Consulting Agreements with Affiliates of Stockholders and Directors (Continued)

years ended December 31, 1994 and 1995, respectively. Pillar received payment for such fees through $2,435,883 of cash payments and through the issuance of five-year warrants for the purchase of 2,191,334 shares of common stock at $10.00 per share, expiring on various dates beginning on July 14, 1998 through October 25, 2000.

(c) Other Research and Development Agreements

The Company has entered into consulting and research agreements with the Foundation, universities, research and testing organizations and individuals, under which consulting and research support is provided to the Company. These agreements are for varying terms through and provide for certain minimum annual or per diem fees plus reimbursable expenses to be paid during the contract periods. Future minimum fees payable under these contracts as of December 31, 1996 are approximately as follows:

CALENDAR YEAR	AMOUNT
1997	$2,096,000
1998	339,000
1999	211,000
2000	82,000
	$2,728,000

Total fees and expenses under these contracts were approximately $2,715,000, $5,470,000, and $7,171,000 during the years ended December 31, 1994, 1995 and 1996 respectively.

(d) Employment Agreements

The Company has entered into employment agreements with certain of its executive officers which provide for, among other things, each officer's annual salary, cash bonus, fringe benefits, and vacation and severance arrangements. Under the agreements, the officers are generally entitled to receive severance payments of two to three year's base salary.

(15) INCOME TAXES

The Company applies SFAS No. 109, Accounting for Income Taxes. At

December 31, 1996, the Company had net operating loss and tax credit carryforwards for income tax purposes of approximately $138,191,000 and $2,989,000, respectively, available to reduce federal taxable income and federal income taxes, respectively. The Tax Reform Act of 1986 (the Act), enacted in October 1986, limits the amount of net operating loss and credit carryforwards that companies may utilize in any one year in the event of cumulative changes in ownership over a three-year period in excess of 50%. The Company has completed several financings since the effective date of the Act, which, as of December 31, 1996, have resulted in ownership changes in excess of 50%, as defined under the Act. The Company does not believe that such ownership changes will significantly impact the Company's ability to utilize the net operating loss and credit carryforwards existing at December 31, 1996. Ownership changes in future periods may limit the Company's ability to utilize net operating loss and tax credit carryforwards.

The federal net operating loss carryforwards and tax credit carryforwards expire approximately as follows:

EXPIRATION DATE	NET OPERATING LOSS CARRYFORWARDS	TAX CREDIT CARRYFORWARDS
December 31-		
2005	$ 666,000	$ 15,000
2006	3,040,000	88,000
2007	7,897,000	278,000
2008	18,300,000	627,000
2009	25,670,000	689,000
2010	36,134,000	496,000
2011	46,484,000	796,000
	$138,191,000	$2,989,000

(15) INCOME TAXES (Continued)

The components of the deferred tax amounts, carryforwards and the valuation allowance are approximately as follows:

	DECEMBER 31, 1995	1996
Operating loss carryforwards	$ 36,664,000	$ 55,276,000
Temporary differences	1,108,000	851,000

Tax credit carryforwards	2,193,000	2,989,000
	39,965,000	59,116,000
Valuation allowance	(39,965,000)	(59,116,000)
	$ -	$ -

A valuation allowance has been provided, as it is uncertain if the Company will realize the deferred tax asset. The net change in the total valuation allowance during the year ended December 31, 1996 was an increase of approximately $19,151,000.

(16) EMPLOYEE BENEFIT PLAN

On October 10, 1991, the Company adopted an employee benefit plan under Section 401(k) of the Internal Revenue Code. The plan allows employees to make contributions up to a specified percentage of their compensation. Under the plan, the Company may, but is not obligated to, match a portion of the employees' contributions up to a defined maximum. The Company is currently matching 50% of employee contributions to the plan, up to 6% of the employee's annual base salary, and charged to operations approximately $77,000, $125,000, and $224,000 for the years ended December 31, 1994, 1995, and 1996, respectively, for such matching contributions.

(17) SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES

The accompanying consolidated financial statements include the following noncash investing and financing activities:

	DECEMBER 31.			CUMULATIVE FROM MAY 25, 1989 (INCEPTION) TO DECEMBER 31, 1996
	1994	1995	1996	
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:				
Cash paid during the period for interest	$ 69,045	$ 172,757	$ 124,052	$ 365,854
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING ACTIVITIES:				
Purchase of property and equipment under capital leases	1,343,720	90,562	1,722,333	3,229,868
SUPPLEMENTAL DISCLOSURE OF NONCASH FINANCING ACTIVITIES:				
Issuance of Series C convertible preferred stock in exchange for convertible promissory notes	$ -	$ -	$ -	$ 1,700,000
Issuance of convertible promissory notes in exchange for subscriptions receivable	-	-	-	937,000
Issuance of stock warrants in exchange for deferred financing costs	-	-		238,000
Issuance of Series D convertible				

preferred stock in exchange for convertible promissory notes and accrued interest	-	-	-	9,382,384
Issuance of Series E convertible preferred stock in exchange for subscriptions receivable	-	-	-	555,117
Issuance of Series F convertible preferred stock in exchange for subscriptions receivable	250,000	-	-	2,535,000
Issuance of Series G convertible preferred stock in exchange for subscriptions receivable	-	-	-	906,016
Cancellation of warrants and reduction of deferred financing costs	68,000	-	-	68,000
Conversion of preferred stock into common stock	-	-	159,822	159,822

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
3.1**	Restated Certificate of Incorporation of the Registrant.
3.2*	Amended and Restated By-Laws of the Registrant.
4.*	Specimen Certificate for shares of Common Stock, $.001 par value, of the Registrant.
+10.1*	License Agreement dated February 21, 1990 and restated as of September 8, 1993 between the Registrant and the Worcester Foundation for Biomedical Research, Inc., as amended.
+10.2*	Patent License Agreement dated September 21, 1995 between the Registrant and National Institutes of Health.
+10.3*	License Agreement effective as of October 13, 1994 between the Registrant and McGill University.
+10.4*	License Agreement effective as of October 25, 1995 between the Registrant and The General Hospital Corporation.
+10.5*	License Agreement dated as of October 30, 1995 between the Registrant and Yoon S. Cho-Chung.
+10.6*	Agreement dated as of December 30, 1992 between the Registrant and Hoffmann- La Roche Inc.
+10.7*	Research and License Agreement effective as of December 30, 1992 between the Registrant and F. Hoffmann-La Roche Ltd.
+10.8*	Collaborative Study Agreement effective as of December 30, 1992 between the Registrant and Medtronic, Inc.
+10.9*	System Design and Procurement Agreement dated as of December 16, 1994 between the Registrant and Pharmacia Biotech, Inc.
10.10*	Lease dated April 9, 1992 between Worcester Business Development Corporation and the Registrant for offices and laboratory space located in Two Biotech Park, Worcester, Massachusetts.
10.11*	Lease dated February 15, 1991 between Worcester Business Development Corporation and the Registrant, as amended, for offices and laboratory space located in Three Biotech Park, Worcester, Massachusetts.

10.12* Sublease dated November 1, 1994 between EcoScience Corporation and the Registrant, as amended, for offices and laboratory space located in Four Biotech Park, Worcester, Massachusetts.

10.13* Lease dated March 10, 1994 between the Registrant and Laborer's Pension/Milford Investment Corporation for space located at 155 Fortune Boulevard, Milford, Massachusetts, including Note in the original principal amount of $750,000.

10.14* Lease dated February 4, 1994 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.

10.15* Loan and Security Agreement dated as of March 29, 1991 between the Registrant and Technology Funding Secured Investors II.

10.16* Series G Convertible Preferred Stock and Warrant Purchase Agreement dated as of September 9, 1994 among the Registrant and certain Purchasers, as amended (the "Series G Agreement").

10.17* Registration Rights Agreement dated as of February 21, 1990 between the Registrant, the Worcester Foundation for Biomedical Research, Inc. and Paul C. Zamecnik.

10.18* Registration Rights Agreement dated as of June 25, 1990 between the Registrant and Nigel L. Webb.

10.19* Registration Rights Agreement dated as of February 6, 1992 between the Registrant and E. Andrews Grinstead, III.

10.20* Registration Rights Agreement dated as of February 6, 1992 between the Registrant and Anthony J. Payne.

++10.21* 1990 Stock Option Plan, as amended.

++10.22* 1995 Stock Option Plan.

++10.23* 1995 Director Stock Plan.

++10.24* 1995 Employee Stock Purchase Plan.

10.25* Form of Warrant to purchase shares of Series C Convertible Preferred Stock originally issued to Pillar Investment Limited (formerly known as Ash Properties Limited), as amended.

10.26* Form of Warrant to purchase shares of Common Stock issued in connection with the issuance of the Registrant's series of notes known as its 10% Convertible Subordinated Notes due September 16, 1993 and the Registrant's 10% Convertible Subordinated Note Due March 19, 1993, as amended.

10.27* Warrant issued to Pillar S.A. to purchase up to 175,000 shares of Common Stock dated as of December 1, 1992, as amended.

10.28* Warrant issued to F. Hoffmann-La Roche Ltd. to purchase 551,724 shares of Common Stock dated as of February 12, 1993.

10.29* Form of Warrant originally issued to Pillar Investment Limited to purchase 427,126 shares of Common Stock dated as of February 15, 1993, as amended.

10.30*	Form of Warrant originally issued to Pillar Investment Limited to purchase 350,000 shares of Common Stock dated as of February 15, 1993, as amended.
10.31*	Warrant issued to Pillar Investment Limited to purchase 500,000 shares of Common Stock dated as of February 4, 1994, as amended.

10.32*	Form of Warrant issued to Pillar Investment Limited to purchase shares of Common Stock issued as placement commissions in connection with the sale of shares of Series F Convertible Preferred Stock and in consideration of financial advisory services, as amended.
10.33*	Warrant issued to Pillar S.A. to purchase 100,000 shares of Common Stock dated as of March 1, 1994, as amended.
10.34*	Form of Warrant to purchase shares of Common Stock issued as part of the Units (as defined in the Series G Agreement) issued and sold to investors pursuant to the Series G Agreement on or prior to March 31, 1995, as amended.
10.35*	Form of Warrant to purchase shares of Common Stock issued as part of the Units issued and sold to investors pursuant to the Series G; Agreement after March 31, 1995.
10.36*	Warrant issued to Pillar S.A. to purchase 100,000 shares of Common Stock dated as of March 1, 1995.
10.37*	Form of Warrant issued to Pillar Investment Limited to purchase shares of Common Stock issued as placement commissions in connection with the sale of Units pursuant to the Series G Agreement.
++10.38	Employment Agreement dated as of March 1, 1997 between the Registrant and E. Andrews Grinstead, III.
10.39*	Indemnification Agreement dated as of February 6, 1992 between the Registrant and E. Andrews Grinstead, III.
++10.40	Employment Agreement dated as of March 1, 1997 between the Registrant and Anthony J. Payne.
10.41*	Indemnification Agreement dated as of February 6, 1992 between the Registrant and Anthony J. Payne.
++10.42	Employment Agreement dated March 1, 1997 between the Registrant and Dr. Sudhir Agrawal.
++10.43*	Employment Agreement dated October 1, 1993 between the Registrant and Dr. Paul Schechter.
++10.44*	Consulting Agreement dated as of February 21, 1990 between the Registrant and Dr. Paul C. Zamecnik.
10.45*	Consulting Agreement dated as of March 1, 1994 between the Registrant and Pillar S.A.
10.46*	Consulting Agreement dated as of July 8, 1995 between the Registrant and Pillar S.A., as amended.

10.47*	Master Lease Agreement dated as of March 1, 1994 between the Registrant and General Electric Capital Corporation.

10.48*	First Amendment to Lease dated as of November 30, 1995 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.
+10.49**	Research, Development and License Agreement dated as of January 24, 1996 between the Registrant and G.D. Searle & Co.
+10.50**	Manufacturing and Supply Agreement dated as of January 24, 1996 between the Registrant and G.D. Searle & Co.
10.51**	Registration Rights Agreement dated as of January 24, 1996 between the Registrant and G.D. Searle & Co.
10.52**	Second Amendment to Lease dated as of February 23, 1996 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.
10.53**	Third Amendment to Lease dated as of February 28, 1996 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.
10.54	Fourth Amendment to Lease dated as of July 25, 1996 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.
10.55	Fifth Amendment to Lease dated as of March 14, 1997 between the Registrant and Charles River Building Limited Partnership for space located at 620 Memorial Drive, Cambridge, Massachusetts.
10.56	Loan and Security Agreement dated as of December 31, 1996 between the Registrant and Silicon Valley Bank.
10.57	Warrant issued to Silicon Valley Bank to purchase 65,000 shares of Common Stock dated as of December 31, 1996.
10.58	Registration Rights Agreement dated as of December 31, 1996 between the Registrant and Silicon Valley Bank.
10.59	Master Equipment Lease Agreement dated as of October 25, 1996 between the Registrant and Finova Technology Finance, Inc.
+++10.60	Supply and Sales Agreement dated as of September 1, 1996 between the Registrant and P.E. Applied Biosystems.
11.	Computation of pro forma net loss per common share.
21.*	Subsidiaries of the Registrant.
23.1	Consent of Arthur Andersen LLP.

23.2 Consent of Banner & Witcoff, Ltd.

27 Financial Data Schedule [EDGAR]

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* Incorporated by reference to Exhibits to the Registrant's Registration Statement on Form S-1 (File No. 33-99024).

** Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1995.

\+ Confidential treatment granted as to certain portions, which portions are omitted and filed separately with the Commission.

++ Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Annual Report on Form 10-K.

+++ Confidential treatment requested as to certain portions, which portions are omitted and filed separately with the Commission.

EXHIBIT 10.38

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement"), made this 1st day of March, 1997, is entered into by and between Hybridon, Inc., a Delaware corporation with its principal place of business at One Innovation Drive, Worcester, Massachusetts 01605 (the "Company"), and E. Andrews Grinstead, III, residing at 33 Edgehill Road, Brookline, Massachusetts 02146 (the "Employee").

The Company desires to employ the Employee, and the Employee desires to be employed by the Company. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1. Term of Employment. The Company hereby agrees to employ the Employee, and the Employee hereby accepts employment with the Company, upon the terms set forth in this Agreement, for the period commencing on July 1, 1996 (the "Commencement Date") and ending on June 30, 2001, unless sooner terminated in accordance with the provisions of Section 4 (the "Employment Period").

2. Title; Capacity. During the Employment Period, the Employee shall serve as Chairman and Chief Executive Officer of the Company. The Employee shall be subject to the supervision of, and shall have such authority as is delegated to him by, the Board of Directors of the Company (the "Board") consistent with his positions as Chairman and Chief Executive Officer. The Employee hereby accepts such

employment and agrees to undertake the duties and responsibilities normally inherent in such position and such other duties and responsibilities as the Board shall from time to time reasonably assign to him consistent with his positions as Chairman and Chief Executive Officer.

During the Employment Period, the Employee shall, subject to the direction and supervision of the Board, devote his full business time, best efforts, business judgment, skill and knowledge to the advancement of the Company's business and interests and to the discharge of his duties and responsibilities hereunder. He shall not engage in any other business activity, except as may be approved by the Board in advance. The Employee agrees to abide by the rules, regulations, instructions, personnel practices and policies of the Company, and any changes therein which may be adopted from time to time by the Company, as such rules, regulations, instructions, personnel practices and policies may reasonably be applied to the Employee as Chairman and Chief Executive Officer of the Company.

3. Compensation and Benefits.

3.1 Salary. The Company shall pay the Employee, in accordance with the Company's standard payroll practices in effect from time to time, an annual base salary of $375,000, which amount shall be subject to increase as provided in the next sentence. The Company agrees to review the Employee's annual base salary on an annual basis no later than April 30 of each calendar year commencing in 1997 to consider a merit increase in such annual base salary for such calendar year based

upon the performance of the Employee during the prior calendar year. Any such merit increase shall be effective as of the first day of such calendar year. If the Employee's annual base salary is increased in accordance with the previous

sentence, it shall not be subject to decrease thereafter without the consent of the Employee. In the event that the Employee is, or is to be, employed for less than a full calendar month, the semi-monthly installments of the annual base salary shall be appropriately adjusted.

3.2 Bonus. For each calendar year of the Company, the Employee shall be entitled to receive a cash bonus, depending upon the achievement by the Employee and/or the Company of management objectives to be set by the Board ("Management Objectives") with respect to such calendar year prior to the beginning of such calendar year. No bonus payable pursuant to the terms of this Section 3.2 shall be reduced or otherwise affected by the payment of any Additional Payment in accordance with Section 3.5.

All bonuses, if any, for a calendar year shall be payable no later than January 31 of the ensuing calendar year; provided, however, that if financial information necessary for the Board to determine whether a bonus with respect to a particular calendar year has been earned is not available as of January 31 of the ensuing calendar year, the Company may defer payment of the bonus for the prior calendar year until no later than March 31 of such ensuing calendar year.

Notwithstanding anything herein to the contrary, in the event of any termination of the Employee's employment hereunder for any reason whatsoever (whether by the Employee or the Company), any unpaid bonus payable in accordance with this Section 3.2 for the calendar year preceding the calendar year in which such termination occurs shall be paid to the Employee in accordance with this Section 3.2.

3.3 Fringe Benefits; Vacation. The Employee shall be entitled to participate in the benefit and fringe benefit programs afforded by the Company to its executives from time to time; provided, however, that the Company shall be required to pay or contribute to such programs in respect of the Employee for any calendar year of the Company an amount equal to 25% of the Employee's annual base salary for such calendar year (the "Benefits Amount"). The Benefits Amount shall not include contributions made by the Company to FICA or FUTA or similar legally required payments, expense reimbursements, vacation or any equity incentives granted to the Employee. If the Company, after providing a reasonably comprehensive benefit and fringe benefit program for the Employee, fails to spend for a calendar year the entire Benefits Amount for such calendar year, the entire unspent Benefits Amount shall be paid to the Employee in cash within 60 days after the end of such calendar year. The Employee shall be entitled to paid vacation in accordance with the Company's standard vacation policies in effect from time to time

(such policies as in effect on the date hereof providing that the Employee is entitled to six weeks paid vacation per calendar year based on his years of service to date).

3.4 Reimbursement of Expenses. The Company shall reimburse the Employee for all reasonable travel, entertainment and other expenses incurred or paid by the Employee in connection with, or related to, the performance of his duties, responsibilities or services under this Agreement, upon presentation by the Employee of documentation, expense statements, vouchers and/or such other supporting infor mation as the Company may reasonably request; provided, however, that the amount available for such travel, entertainment and other expenses may be fixed in advance by the Board consistent with the Employee's positions and responsibilities as Chairman and Chief Executive Officer of the Company.

3.5 Certain Additional Payments. For each calendar year in the three-year period ending December 31, 1998, the Employee shall be entitled to receive an additional cash payment (the "Additional Payment") of $16,000. No Additional Payment payable pursuant to the terms of this Section 3.5 shall be

reduced or otherwise affected by the payment of any bonus in accordance with Section 3.2. The Additional Payment for a calendar year shall be payable no later than January 31 of the ensuing calendar year.

Notwithstanding anything herein to the contrary, in the event of any termination of the Employee's employment hereunder for any reason whatsoever (whether by the Company or the Employee), any unpaid Additional Payment payable

in accordance with this Section 3.5 for any calendar year preceding the calendar year in which such termination occurs shall be paid to the Employee in accordance with this Section 3.5.

3.6 Other Plans. Nothing herein shall be construed as making the Employee ineligible to participate in and receive awards or grants under any equity incentive plan of the Company in accordance with the terms thereof in which the Employee would otherwise be eligible to participate.

4. Employment Termination. The employment of the Employee by the Company pursuant to this Agreement shall terminate upon the occurrence of any of the following:

4.1 Expiration of the Employment Period in accordance with Section 1.

4.2 At the election of the Company, for cause, immediately upon written notice by the Company to the Employee. For the purposes of this Section 4.2, "cause" for termination shall be deemed to exist solely upon (a) the occurrence of dis honesty or willful misconduct of the Employee which, in either event, is material and related to his duties as an employee of the Company (including, without limitation, any material breach of the provisions of Section 7 or 8) or (b) the conviction of the Employee of, or the entry of a pleading of guilty or nolo contendere by the Employee to, any crime involving moral turpitude or any felony.

4.3 At the election of the Company, immediately upon written notice to the Employee, upon the occurrence of the material failure of the Employee to perform his reasonably assigned duties for the Company, which failure is not cured within 30 days after the giving of written notice to the Employee by the Company. For purposes of this Section 4.3, "failure of the Employee to perform" shall include, without limitation, refusal by the Employee to perform and inadequate performance by the Employee.

4.4 At the election of the Company, without cause, upon 30 days' prior written notice to the Employee.

4.5 Thirty days after the death or disability of the Employee. As used in this Agreement, the term "disability" shall mean the Employee shall have been unable to perform the material services contemplated under this Agreement for a period of 90 days, whether or not consecutive, during any 360-day period, due to a physical or mental disability. A determination of disability shall be made by a physician satisfactory to both the Employee and the Company, provided that if the Employee and the Company do not agree on a physician, the Employee and the Company shall each select a physician and these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

4.6 At the election of the Employee, upon not less than 60 days' prior written notice to the Company given promptly after the occurrence of the event giving rise to such termination, in the event of the Company's taking any of the

following actions, which actions shall not have been cured within such 60-day period: (a) material and adverse diminution, on a cumulative basis, of the Employee's duties, authority, position, compensation (other than bonus or other discretionary elements of the Employee's compensation) or aggregate benefits, including, without limitation, failure to cause the Employee to retain the positions of Chairman and Chief Executive Officer of the Company; (b) the failure of the Employee to be elected to and remain a member of the Board throughout the Employment Period (provided the Employee is willing to serve as such on the same terms and conditions as other employee-directors) (unless the Employee is removed from the Board of Directors in connection with the termination of the Employee's employment pursuant to Sections 4.2, 4.3, 4.4 or 4.5 of this Agreement); or (c) the relocation (other than upon the Employee's recommendation) of the Company's principal executive offices to a location more than 100 miles outside the city limits of Cambridge, Massachusetts.

5. Effect of Termination.

5.1 Termination by the Company for Cause. In the event the Employee's employment is terminated by the Company pursuant to Section 4.2, the Company shall pay to the Employee the compensation and benefits otherwise payable to him under Section 3 (other than the bonuses and payments provided for in Sections 3.2 and 3.5 for the calendar year in which such termination is effective) through the last day of his actual employment by the Company.

5.2 Termination by the Company Without Cause or for Failure to Perform Duties; Termination by the Employee for Cause.

(a) In the event the Employee's employment is terminated by the Company pursuant to Section 4.3 or 4.4 or is terminated by the Employee pursuant to Section 4.6 (each, a "Qualifying Termination"), the Company shall pay or provide to the Employee the compensation (including, without limitation, in lieu of the bonuses and payments provided for in Sections 3.2 and 3.5, (i) a pro rata portion of the Severance Bonus Amount (as defined below) for the calendar year in which such termination is effective determined by multiplying the Severance Bonus Amount by a fraction (the "Pro Rata Fraction"), the numerator of which shall be the number of days between the first day of the calendar year and the date on which the termination is effective and the denominator of which shall be 365, and (ii) in the event that the Qualifying Termination occurs prior to December 31, 1998 and the Additional Payment has not been paid to the Employee for the calendar year in which such Qualifying Termination occurs, $16,000) and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company; provided that the pro rata portion of the Severance Bonus Amount and the Additional Payment to which the Employee may be entitled pursuant to this Section 5.2(a) shall be paid to the Employee in installments during the six-month period commencing on the effective date of termination in the manner provided in Section 5.2(d).

(b) Except as otherwise provided in Section 5.4, in the event of a Qualifying Termination, the Company shall make severance payments to the Employee at a monthly rate equal to one-twelfth of the sum of (i) the annual base salary referred to in Section 3.1 to which the Employee was entitled on the effective date of such Qualifying Termination plus (ii) the Severance Bonus Amount for the calendar year in which such Qualifying Termination is effective, for the applicable period of time specified below (the "Severance Period"):

(I) in the event the Employee's employment is terminated by the Company pursuant to Section 4.3, the Company shall make such severance payments to the Employee for the six-month period commencing on the effective date of such termination; and

(II) in the event the Employee's employment is terminated by the Company pursuant to Section 4.4 or by the Employee pursuant to Section 4.6, the Company shall make such severance payments to the Employee for the 24-month period commencing on the effective date of such termination.

(c) For purposes of this Agreement, the Severance Bonus Amount for a calendar year shall equal the average of the bonus paid to the Employee pursuant to Section 3.2 of this Agreement for each of the three calendar years immediately preceding such calendar year.

(d) All severance payments provided for in this Section 5.2 shall be made in semi-monthly installments in arrears on the fifteenth day and the

last day of each calendar month. Such installments shall be appropriately adjusted in the event a severance payment is due for any partial calendar month.

(e) Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee the fringe benefits other than health, disability and term life insurance benefits as may have been provided to the Employee in accordance with Section 3.3 immediately prior to such Qualifying Termination for a period ending on the earliest of (i) June 30, 2001, (ii) the date of the Employee's employment by a third party on a substantially full-time basis, (iii) the date six months after the effective date of such Qualifying Termination, or (iv) the death of the Employee. Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee such health, disability and term life insurance benefits as may have been provided to the Employee in accordance with Section 3.3 immediately prior to such Qualifying Termination (subject to changes in the terms of such coverage by the provider as may be applicable to the Company as a whole) for a period ending on the earliest of (A) the date of the Employee's employment by a third party on a substantially full-time basis, (B) the death of the Employee and (C) the date upon which the applicable Severance Period expires.

The Employee shall notify the Company promptly following his acceptance of any offer of employment by a third party. The Employee shall be under no obligation to seek other employment following any Qualifying Termination, and any amounts he earns in any other employment shall not reduce or offset the severance

payments or other amounts due hereunder except as specifically provided in this Section 5.2(e).

5.3 Termination for Death or Disability. In the event the Employee's employment is terminated by death or because of disability pursuant to Section 4.5 (a "Section 4.5 Termination"), the Company shall pay or provide to the estate of the Employee or to the Employee, as the case may be, the compensation (including, without limitation, in lieu of the bonuses and payments provided for in Sections 3.2 and 3.5, (i) the Pro Rata Fraction of the Severance Bonus Amount for the calendar year in which such termination is effective, and (ii) in the event that the termination is effective prior to December 31, 1998 and the Additional Payment has not been paid to the Employee for the calendar year in which such termination is effective, $16,000, which amounts will be paid in a one-time lump sum payment within 30 days of the last day of the Employee's actual employment by the Company) and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company.

5.4 Termination Upon Change in Control of the Company.

(a) In the event the Employee's employment is terminated pursuant to Sections 4.3, 4.4 or 4.6 within 12 months following a Change in Control (as defined below) of the Company, the Company shall make a one-time

lump sum severance payment (the "Change in Control Severance Payment") to the Employee in an amount equal to the product of (i) the sum of (A) the annual base salary referred

to in Section 3.1 to which the Employee was entitled on the effective date of termination, plus (B) the Severance Bonus Amount for the calendar year in which such termination occurs, multiplied by (ii) three. In such event, the Employee shall not be entitled to the payments to which he would otherwise be entitled pursuant to Section 5.2(b), but shall continue to be entitled to benefits provided by the Company pursuant to and in accordance with Section 5.2(e).

(b) The Change in Control Severance Payment payable under this Section 5.4 shall be made without regard to whether the deductibility of such payment (or any other "parachute payments," as that term is defined in Section 280G of the Internal Revenue Code of 1986, as amended (the "Code"), to or for the Employee's benefit) would be limited or precluded by Section 280G and without regard to whether such payments (or any other "parachute payments" as so defined) would subject the Employee to the federal excise tax levied on certain "excess parachute payments" under Section 4999 of the Code; provided that if the total of all "parachute payments" to or for the Employee's benefit, after reduction for all federal taxes (including the tax described in Section 4999 of the Code, if applicable) with respect to such payments (the "Total After-Tax Payments"), would be increased by the limitation or elimination of any payment under this Section 5.4, amounts payable under this Section 5.4 shall be reduced to the extent, and only to the extent, necessary to maximize the Total After-Tax Payments. The determination as to whether and to what extent payments under this Section 5.4 are required to be reduced in accordance

with the preceding sentence shall be made at the Company's expense by Arthur Andersen LLP, or by such other certified public accounting firm as the Board may designate prior to a Change in Control of the Company. In the event that payments to be made under this Section 5.4 are to be reduced pursuant to this Section 5.4, the Employee shall designate which such payments shall be reduced. In the event of any underpayment or overpayment under this Section 5.4 as determined by Arthur Andersen LLP (or such other firm as may have been designated in accordance with the preceding sentence), the amount of such underpayment or overpayment shall forthwith be paid to the Employee or refunded to the Company, as the case may be, with interest at the applicable federal rate provided for in Section 1274(d) of the Code.

(c) A "Change in Control" of the Company shall occur or be deemed to have occurred in the event that:

(i) any "person", as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (a "Person") other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company, or any corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company, acquires "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of the Company representing 50% or more of the combined voting power of the Company's

then outstanding securities (other than through an acquisition of securities directly from the Company);

(ii) individuals who, as of the date of this Agreement, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual

becoming a director subsequent to the date of this Agreement whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (B) a merger or consolidation effected to implement a recapitalization of the

Company (or similar transaction) in which no "person" (as hereinabove defined) acquires more than 50% of the combined voting power of the Company's then outstanding securities; or

(iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets.

5.5 Survival. The provisions of Sections 5, 7 and 8 shall survive the termination of this Agreement.

6. Stock Options. Promptly following the execution and delivery of this Agreement, the Company shall amend all stock options to purchase shares of capital stock of the Company granted to the Employee pursuant to any stock plan or other employee benefit arrangement of the Company other than the Company's 1990 Stock Option Plan (an "Employer Stock Option Plan"), which are outstanding as of the effective date of this Agreement, to include the provisions set forth on Exhibit A attached hereto. In addition, the Company agrees that any stock options to purchase shares of capital stock of the Company granted to the Employee during the Employment Period pursuant to any Employer Stock Option Plan shall include the provisions set forth on Exhibit A attached hereto. Notwithstanding the foregoing to the contrary, no provision that is set forth on Exhibit A attached hereto shall be included in a stock option if such provision is prohibited from being included in such

stock option by the Employer Stock Option Plan pursuant to which such stock option was granted.

7. Non-Compete.

(a) During the Employment Period and for a period of two (2) years after the termination or expiration thereof, the Employee will not directly or indirectly:

(i) as an individual proprietor, partner, stockholder, officer, employee, director, joint venturer, investor, lender, or in any other capacity whatsoever (other than as the holder of not more than one percent (1%) of the total outstanding stock of a publicly held company), engage in the business (the "Restricted Business") of developing, producing, marketing, selling or performing products or services of the kind or type developed or being developed, produced, marketed, sold or performed by the Company while the Employee was employed by the Company (provided that following the expiration or

termination of the Employment Period, (a) the Employee may act as an employee of or consultant to a person or entity which engages in the Restricted Business so long as the Employee does not himself engage in or assist the person or entity in engaging in the Restricted Business by virtue of such employment or consulting relationship; (b) the Employee may serve as a senior executive in a corporation or other entity that has a division or subsidiary that reports to the Employee and that engages in the Restricted Business if the Employee is no more than nominally involved in the day-to-day operations or

business practices of such division or subsidiary; and (c) the Employee may provide investment banking services to corporations or other entities engaged in the Restricted Business relating to financing, mergers, acquisitions and dispositions); or

(ii) recruit, solicit or induce, or attempt to induce, any employee or employees of the Company to terminate their employment with, or otherwise cease their relationship with, the Company; or

(iii) divert or take away, or attempt to divert or to take away, the business or patronage, of any of the clients, customers or accounts, or prospective clients, customers or accounts, of the Company which were contacted, solicited or served by the Employee while employed by the Company.

(b) If any restriction set forth in this Section 7 is found by any court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it shall be interpreted to extend only over the maximum period of time, range of activities or geographic area as to which it may be enforceable.

(c) The restrictions contained in this Section 7 are necessary for the protection of the business and goodwill of the Company and are considered by the Employee to be reasonable for such purpose. The Employee agrees that any breach of this Section 7 will cause the Company substantial and irreparable damage and therefore, in the event of any such breach, in addition to such other remedies which

may be available, the Company shall have the right to seek specific performance and injunctive relief.

8. Inventions and Proprietary Information.

8.1 Inventions.

(a) All inventions, discoveries, computer programs, data, technology, designs, innovations and improvements (whether or not patentable and whether or not copyrightable) related to the business of the Company which are made, conceived, reduced to practice, created, written, designed or developed by the Employee, solely or jointly with others and whether during normal business hours or otherwise, during his employment by the Company pursuant to this Agreement ("Inventions") shall be the sole property of the Company. The Employee hereby assigns to the Company all such Inventions and any and all related patents, copyrights, trademarks, trade names, and other industrial and intellectual property rights and applications therefor, in the United States and elsewhere and appoints any officer of the Company as his duly authorized attorney, but without any out-of-pocket expense to the Employee, to execute, file, prosecute and protect the same before any government agency, court or authority. The Employee hereby waives all claims to moral rights in any Invention. Upon the request of the Company and at the Company's expense, the Employee shall execute such further assignments, documents and other instruments as may be necessary or desirable to fully and completely assign all such Inventions to the Company and to assist the Company in applying

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for, obtaining and enforcing patents or copyrights or other rights in the United States and in any foreign country with respect to any such Invention.

(b) The Employee shall promptly disclose to the Company all such Inventions and will maintain adequate and current written records (in the form of notes, sketches, drawings and as may be reasonably specified by the Company) to document the conception and/or first actual reduction to practice of any such Invention. Such written records shall be available to and remain the sole property of the Company at all times.

8.2 Proprietary Information.

(a) The Employee acknowledges that his relationship with the Company is one of high trust and confidence and that in the course of his employment by the Company he will have access to and contact with Proprietary Information. The Employee agrees that he will not, during the Employment Period or at any time thereafter, disclose to others, or use for his benefit or the benefit of others, any Proprietary Information or any Invention.

(b) For purposes of this Agreement, Proprietary Information shall mean all information (whether or not patentable and whether or not copyrightable) owned, possessed or used by the Company, including, without limitation, any Invention, formula, formulation, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical data, know-how, computer program, software, software documentation, hardware

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design, technology, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost and employee list that is communicated to, learned of, developed or otherwise acquired by the Employee in the course of his employment by the Company.

(c) The Employee's obligations under this Section 8.2 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by the Employee of the terms of this Section 8.2, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, (iii) is approved for release by written authorization of the Board of Directors or an authorized employee of the Company, (iv) is communicated to the Employee by a third party under no duty of confidentiality with respect to such information to the Company or another party, or (v) is required to be disclosed by the Employee to comply with applicable laws, governmental regulations, or court order, provided that the Employee provides prior written notice of such disclosure to the Company and an opportunity for the Company to object to such disclosure and further provided that the Employee cooperates with the Company and takes reasonable and lawful actions requested by the Company (the out-of-pocket costs of which shall be paid by the Company) to avoid and/or minimize the extent of such disclosure.

(d) Upon termination of this Agreement or at any other time upon request by the Company, the Employee shall promptly deliver to the Company

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all records, files, memoranda, notes, designs, data, reports, price lists, customer lists, drawings, plans, computer programs, software, software documentation, sketches, laboratory and research notebooks and other documents (and all copies or reproductions of such materials in his possession or control) belonging to the Company.

(e) The Employee represents that the Employee's employment by

the Company and the performance by the Employee of his obligations under this Agreement do not, and shall not, breach any agreement that obligates him to keep in confidence any trade secrets or confidential or proprietary information of his or of any other party or to refrain from competing, directly or indirectly, with the business of any other party. The Employee shall not disclose to the Company, and the Company shall not request that the Employee disclose, any trade secrets or confidential or proprietary information of any other party.

(f) The Employee acknowledges that the Company from time to time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on the Company regarding inventions made during the course of work under such agreements or regarding the confidential nature of such work. If the Employee's duties hereunder will require disclosures to be made to him subject to such obligations and restrictions, the Employee agrees to be bound by them and to take all action necessary to discharge the obligations of the Company under such agreements.

8.3 Remedies. The Employee acknowledges that any breach of the provisions of this Section 8 shall result in serious and irreparable injury to the Company for which the Company cannot be adequately compensated by monetary damages alone. The Employee agrees, therefore, that, in addition to any other remedy it may have, the Company shall be entitled to seek to enforce the specific performance of this Agreement by the Employee and to seek both temporary and permanent injunctive relief (to the extent permitted by law) without the necessity of proving actual damages.

9. Spin-out Policy. The Company currently plans to transfer certain of its technology to affiliated entities in which the Company and third party investors will hold equity interests. As part of such strategy, the Company anticipates granting or causing such entities to grant to the Employee restricted or founders shares of capital stock of such entities or stock options to purchase shares of capital stock of such entities in connection with the transfer of technology to such entities and in connection with the provision of services to such entities thereafter. The Company anticipates that the number of shares of capital stock to be granted to the Employee or to be issuable upon exercise of stock options granted to the Employee shall be commensurate with the Employee's equity ownership of the Company; provided that the determination of the Employee's equity ownership of the Company shall be calculated on a fully-diluted basis and without including any shares of Common Stock or other securities of the Company acquired by the Employee from persons or

entities other than the Company; and provided further that the actual number of shares of capital stock or stock options to purchase shares of capital stock to be granted to the Employee shall be determined by the Compensation Committee of the Board of Directors of the Company. The Employee acknowledges that there can be no assurance that the Company will create or transfer its technology to any affiliated entities, as to how many affiliated entities the Company will create or transfer technology or as to the precise number of shares of capital stock of such affiliated entities to be granted to the Employee or to be issuable upon exercise of stock options to be granted to the Employee or as to the percentage interest of the capital stock of such affiliated entities that such number of shares of capital stock will represent.

10. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or three days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, return receipt requested, addressed to the other party at the address shown above (and, in the case of any notice to the Company, with a copy to David E. Redlick, Esq., Hale and Dorr, 60 State Street, Boston, Massachusetts 02109 and, in the case of any notice to the Employee, with a copy to Michael S. Sirkin, Esq., Proskauer, Rose, Goetz & Mendelson, 1585 Broadway, New York, New

York 10036), or at such other address or addresses of which either party shall notify the other in accordance with this Section 10.

11. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

12. Entire Agreement. This Agreement and the Employee Options constitute the entire agreement between the parties and supersede all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement and the Employee Options. The Company and the Employee acknowledge and agree that the Employment Agreement dated as of February 6, 1992 between the Company and the Employee (the "Previous Employment Agreement") is hereby terminated and superseded by this Agreement (other than Section 7 of the Previous Employment Agreement which shall survive the termination of the Previous Employment Agreement in accordance with Section 5.5 of the Previous Employment Agreement).

13. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Employee.

14. Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to conflict of laws provisions.

15. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of both parties and their respective successors and assigns;

provided, however, that this Agreement may not be assigned by the Company except to a corporation or other person or entity with which or into which the Company may be merged, consolidated or otherwise combined or which may succeed to all or substantially all of its assets or business and which assumes in writing the obligations of the Company hereunder; provided further, however, that the obligations of the Employee are personal and shall not be assigned by him.

16. Definitions. For purposes of this Agreement each of the following defined terms is defined in the Section of this Agreement indicated below:

Defined Term	Section
Additional Payment	3.5
Agreement	Introduction
Beneficial Ownership	5.4(c)(i)
Benefits Amount	3.3
Board	2
Cause for Termination	4.2
Change in Control	5.4(c)
Change in Control Severance Payment	5.4(a)
Code	5.4(b)
Commencement Date	1
Company	Introduction
Disability	4.5
Employee	Introduction
Employer Stock Option Plan	6
Employment Period	1
Exchange Act	5.4(c)(i)

Failure of the Employee to Perform	4.3
Incumbent Board	5.4(c)(ii)
Inventions	8.1
Management Objectives	3.2
Parachute Payments	5.4(b)
Previous Employment Agreement	12
Proprietary Information	8.2(b)
Pro Rata Fraction	5.2(a)

Qualifying Termination	5.2(a)
Restricted Business	7(a)(i)
Section 4.5 Termination	5.3
Severance Period	5.2(b)
Total After-Tax Payments	5.4(b)

17. Miscellaneous.

17.1 No delay or omission by either party in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by either party on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.

17.2 The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

17.3 In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

17.4 This Agreement may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

HYBRIDON, INC.

By: /s/ Anthony J. Payne

Title: Chief Financial Officer

EMPLOYEE

/s/ E. Andrews Grinstead, III

E. Andrews Grinstead, III

Exhibit A

Provisions to be Included in Employee Options

A. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated by the Company pursuant to Section 4.4 of the Employment Agreement dated as of March 1, 1997 between the Company and the Employee, as amended from time to time (the "Employment Agreement"), or by the Employee pursuant to Section 4.6 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary,

(i) upon the effective date of termination of the Employee's employment with the Company (the "Employment Termination Date"), the exercisability of such stock option shall be accelerated by two years so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the second anniversary of the Employment Termination Date; and

(ii) such stock option shall become exercisable for a period of two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

B. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated pursuant to Section 4.5 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary, upon the Employment Termination Date, the exercisability of such stock option shall be accelerated by one year so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the first anniversary of the Employment Termination Date.

C. (i) If, prior to the expiration date of the stock option, a Change in Control (as defined in the Employment Agreement) of the Company occurs, then notwithstanding anything in such stock option to the contrary,

(a) if the Change in Control of the Company, regardless of when it is to be consummated, is not to be accounted for as a "pooling of interests" for financial accounting purposes, or if the Initiation Date of the Change in Control of the Company (as defined by generally accepted accounting principles as in effect from time to time), regardless of whether such Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes, occurs on or after the second anniversary of the date of the Employment Agreement, then, effective upon the consummation of the Change in Control of the Company, the exercisability of such stock option shall be accelerated in full (without regard to the application of Section 280G of the Code) so that such stock option shall become exercisable to purchase all of the shares of Common Stock covered by such stock option;

(b) if the Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes and if the Initiation Date of the Change in Control of the Company occurs prior to the second anniversary of the date of the Employment Agreement, then (I) the portion of such stock option that has not vested as of the date immediately prior to the consummation of the Change in Control of the Company (the "Unvested Portion") shall terminate and (II) the Employee shall be entitled to receive, upon the consummation of the Change in Control of the Company, shares of Common Stock of the person that acquired shares of the Company's Common Stock in connection with the Change in Control (the "Acquiror") having a Fair Market Value (as defined below) equal to the Inherent Equity Value of the Unvested Portion (as defined below); and

(c) such stock option shall become exercisable for a period of two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after

the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

(ii) For purposes of this Paragraph C, the following terms shall have the meanings set forth below:

(a) The "Fair Market Value" of the Common Stock of the Acquiror shall be determined by dividing (I) the Fair Market Value of Hybridon Common Stock (as defined below) by (II) the number of shares of the Acquiror's Common Stock for which one share of Common Stock of the Company will be exchanged in the Change of Control of the Company.

(b) If there is a written agreement between the Company and the Acquiror for the Change in Control of the Company, and such agreement establishes an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, then such amount shall be deemed to be the "Fair Market Value of Hybridon Common Stock". If there is not a written agreement between the Company and the Acquiror for the Change in Control of the Company, or if any such agreement does not establish an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, the "Fair Market Value of Hybridon Common Stock" shall be the last reported sale price per share of the Company's Common Stock on the Nasdaq National Market, or on such other nationally recognized exchange or trading system upon which the Company's Common Stock is listed, on such date or, if no such price is reported on such date, such price on the most recent preceding business day for which such price is reported.

(c) The "Inherent Equity Value of the Unvested Portion" shall equal the fair market value of the Unvested Portion on the last business day immediately preceding the consummation of the Change in Control of the Company, as determined by discounting, at the then current interest rate on one-year Treasury Bills, to such day from the dates of future vesting of the Unvested Portion, the difference between the Fair Market Value of Hybridon Common Stock and the exercise prices of the Unvested Portion, multiplied by the number of shares vesting on such future dates.

(iii) Notwithstanding the foregoing, if the Change in Control of the Company is intended to be accounted for as a "pooling of interests" for financial accounting purposes, and if any provision contained in this paragraph C would preclude accounting for the Change in Control of the Company as a "pooling of interests" for financial accounting purposes, then any such provision in this paragraph C shall be null and void.

EXHIBIT 10.40

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement"), made this 1st day of March, 1997, is entered into by and between Hybridon, Inc., a Delaware corporation with its principal place of business at One Innovation Drive, Worcester, Massachusetts 01605 (the "Company"), and Anthony J. Payne, residing at 219 Dedham Street, Dover, Massachusetts 02030 (the "Employee").

The Company desires to employ the Employee, and the Employee desires to be employed by the Company. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1. Term of Employment. The Company hereby agrees to employ the Employee, and the Employee hereby accepts employment with the Company, upon the terms set forth in this Agreement, for the period commencing on July 1, 1996 (the "Commencement Date") and ending on June 30, 2000, unless sooner terminated in accordance with the provisions of Section 4 (the "Employment Period").

2. Title; Capacity. During the Employment Period, the Employee shall serve as Senior Vice President of Finance and Administration and Chief Financial

Officer of the Company. Notwithstanding the foregoing, the Employee acknowledges that the Company is currently contemplating hiring a new Chief Financial Officer and that, in such event, the Employee will serve the Company as President ("Division President") of the Company's Specialty Products Division. The Employee shall be subject to the supervision of, and shall have such authority as is delegated to him by, the Chief Executive Officer of the Company (the "CEO") or the Board of Directors of the Company (the "Board") consistent with his positions as Senior Vice President of Finance and Administration and Chief Financial Officer or as Division President, as the case may be. The Employee hereby accepts such employment and agrees to undertake the duties and responsibilities normally inherent in such position and such other duties and responsibilities as the CEO or the Board shall from time to time reasonably assign to him consistent with his positions as Senior Vice President of Finance and Administration and Chief Financial Officer or as Division President, as the case may be.

During the Employment Period, the Employee shall, subject to the direction and supervision of the CEO and the Board, devote his full business time, best efforts, business judgment, skill and knowledge to the advancement of the Company's business and interests and to the discharge of his duties and responsibilities hereunder and shall not engage in any other business activity, except as may be approved by the Board in advance. The Employee agrees to abide by the rules, regulations, instructions, personnel practices and policies of the Company, and any

changes therein which may be adopted from time to time by the Company, as such rules, regulations, instructions, personnel practices and policies may reasonably be applied to the Employee as Senior Vice President of Finance and Administration and Chief Financial Officer of the Company or Division President, as the case may be.

3. Compensation and Benefits.

3.1 Salary. The Company shall pay the Employee, in accordance with the Company's standard payroll practices in effect from time to time, an annual base salary of $243,750, which amount shall be subject to increase as provided in the next sentence. The Company agrees to review the Employee's annual base salary on an annual basis no later than April 30 of each calendar year commencing in 1997 to consider a merit increase in such annual base salary for such calendar year based upon the performance of the Employee during the prior calendar year. Any such merit increase shall be effective as of the first day of such calendar year. If the Employee's annual base salary is increased in accordance with the previous sentence, it shall not be subject to decrease thereafter without the consent of the Employee. In the event that the Employee is, or is to be, employed for less than a full calendar month, the semi-monthly installments of the annual base salary shall be appropriately adjusted.

3.2 Bonus. For each calendar year of the Company, the Employee shall be entitled to receive a cash bonus, depending upon the achievement by the Employee and/or the Company of management objectives to be set by the CEO and the Board ("Management Objectives") with respect to such calendar year prior to the beginning of such calendar year.

All bonuses, if any, for a calendar year shall be payable no later than January 31 of the ensuing calendar year; provided, however, that if financial information necessary for the Board to determine whether a bonus with respect to a particular calendar year has been earned is not available as of January 31 of the ensuing calendar year, the Company may defer payment of the bonus for the prior calendar year until no later than March 31 of such ensuing calendar year.

Notwithstanding anything herein to the contrary, in the event of any termination of the Employee's employment hereunder for any reason whatsoever (whether by the Employee or the Company), any unpaid bonus payable in accordance with this Section 3.2 for the calendar year preceding the calendar year in which such termination occurs shall be paid to the Employee in accordance with this Section 3.2.

3.3 Fringe Benefits; Vacation. The Employee shall be entitled to participate in the benefit and fringe benefit programs afforded by the Company to its executives from time to time; provided, however, that the Company shall be required to pay or contribute to such programs in respect of the Employee for any calendar

year of the Company an amount equal to 20% of the Employee's annual base salary for such calendar year (the "Benefits Amount"). The Benefits Amount shall not include contributions made by the Company to FICA or FUTA or similar legally required payments, expense reimbursements, vacation or any equity incentives granted to the Employee. If the Company, after providing a reasonably comprehensive benefit and fringe benefit program for the Employee, fails to spend for a calendar year the entire Benefits Amount for such calendar year, the entire unspent Benefits Amount shall be paid to the Employee in cash within 60 days after the end of such calendar year. The Employee shall be entitled to paid vacation in accordance with the Company's standard vacation policies in effect from time to time (such policies as in effect on the date hereof providing that the Employee is entitled to six weeks paid vacation per calendar year based on his years of service to date).

3.4 Reimbursement of Expenses. The Company shall reimburse the Employee for all reasonable travel, entertainment and other expenses incurred or paid by the Employee in connection with, or related to, the performance of his duties, responsibilities or services under this Agreement, upon presentation by the Employee of documentation, expense statements, vouchers and/or such other supporting infor mation as the Company may reasonably request; provided, however, that the amount

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available for such travel, entertainment and other expenses may be fixed in advance by the Board consistent with the Employee's positions and responsibilities as Senior Vice President of Finance and Administration and Chief Financial Officer of the Company or Division President, as the case may be.

3.5 Other Plans. Nothing herein shall be construed as making the Employee ineligible to participate in and receive awards or grants under any equity incentive plan of the Company in accordance with the terms thereof in which the Employee would otherwise be eligible to participate.

4. Employment Termination. The employment of the Employee by the Company pursuant to this Agreement shall terminate upon the occurrence of any of the following:

4.1 Expiration of the Employment Period in accordance with Section 1.

4.2 At the election of the Company, for cause, immediately upon written notice by the Company to the Employee. For the purposes of this Section 4.2, "cause" for termination shall be deemed to exist solely upon (a) the occurrence of dis honesty or willful misconduct of the Employee which, in either event, is material and related to his duties as an employee of the Company (including, without limitation, any material breach of the provisions of Section 7 or 8) or (b) the conviction of the Employee of, or the entry of a pleading of guilty or nolo contendere by the Employee to, any crime involving moral turpitude or any felony.

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4.3 At the election of the Company, immediately upon written notice to the Employee, upon the occurrence of the material failure of the Employee to perform his reasonably assigned duties for the Company, which failure is not cured within 30 days after the giving of written notice to the Employee by the Company. For purposes of this Section 4.3, "failure of the Employee to perform" shall include, without limitation, refusal by the Employee to perform and inadequate performance by the Employee.

4.4 At the election of the Company, without cause, upon 30 days' prior written notice to the Employee.

4.5 Thirty days after the death or disability of the Employee. As used in this Agreement, the term "disability" shall mean the Employee shall have been unable to perform the material services contemplated under this Agreement for a period of 90 days, whether or not consecutive, during any 360-day period, due to a physical or mental disability. A determination of disability shall be made by a physician satisfactory to both the Employee and the Company, provided that if the Employee and the Company do not agree on a physician, the Employee and the Company shall each select a physician and these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

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4.6 At the election of the Employee, upon not less than 60 days' prior written notice to the Company given promptly after the occurrence of the event giving rise to such termination, in the event of the Company's taking any of the following actions, which actions shall not have been cured within such 60-day period: (a) material and adverse diminution, on a cumulative basis, of the Employee's duties, authority, position, compensation (other than bonus or other discretionary elements of the Employee's compensation) or aggregate

benefits, including, without limitation, failure to cause the Employee to retain the positions of Senior Vice President of Finance and Administration and Chief Financial Officer of the Company, subject to the provisions of Section 2 of this Agreement, or to retain the position of Division President, as the case may be; or (b) the relocation (other than upon the Employee's recommendation) of the Company's principal executive offices to a location more than 100 miles outside the city limits of Cambridge, Massachusetts.

5. Effect of Termination.

5.1 Termination by the Company for Cause. In the event the Employee's employment is terminated by the Company pursuant to Section 4.2, the Company shall pay to the Employee the compensation and benefits otherwise payable to him under Section 3 (other than the bonuses provided for in Section 3.2 for the calendar year in which such termination is effective) through the last day of his actual employment by the Company.

5.2 Termination by the Company Without Cause or for Failure to Perform Duties; Termination by the Employee for Cause.

(a) In the event the Employee's employment is terminated by the Company pursuant to Section 4.3 or 4.4 or is terminated by the Employee pursuant to Section 4.6 (each, a "Qualifying Termination"), the Company shall pay or provide to the Employee the compensation (including, without limitation, in lieu of the bonuses provided for in Section 3.2, a pro rata portion of the Severance Bonus Amount (as defined below) for the calendar year in which such termination is effective determined by multiplying the Severance Bonus Amount by a fraction (the "Pro Rata Fraction"), the numerator of which shall be the number of days between the first day of the calendar year and the date on which the termination is effective and the denominator of which shall be 365, and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company; provided that the pro rata portion of the Severance Bonus Amount to which the Employee may be entitled pursuant to this Section 5.2(a) shall be paid to the Employee in installments during the six-month period commencing on the effective date of termination in the manner provided in Section 5.2(d).

(b) Except as otherwise provided in Section 5.4, in the event of a Qualifying Termination, the Company shall make severance payments to the Employee at a monthly rate equal to one-twelfth of the sum of (i) the annual base salary referred to in Section 3.1 to which the Employee was entitled on the effective date of such Qualifying Termination plus (ii) the Severance Bonus Amount for the calendar year in which such Qualifying Termination is effective, for the applicable period of time specified below (the "Severance Period"):

(I) in the event the Employee's employment is terminated by the Company pursuant to Section 4.3, the Company shall make such severance payments to the Employee for the six-month period commencing on the effective date of such termination; and

(II) in the event the Employee's employment is terminated by the Company pursuant to Section 4.4 or by the Employee pursuant to Section 4.6, the Company shall make such severance payments to the Employee for the 24-month period commencing on the effective date of such termination.

(c) For purposes of this Agreement, the Severance Bonus Amount for a calendar year shall equal the average of the bonus paid to the Employee pursuant to Section 3.2 of this Agreement for each of the three calendar years immediately preceding such calendar year.

(d) All severance payments provided for in this Section 5.2

shall be made in semi-monthly installments in arrears on the fifteenth day and the

last day of each calendar month. Such installments shall be appropriately adjusted in the event a severance payment is due for any partial calendar month.

(e) Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee the fringe benefits other than health, disability and term life insurance benefits as may have been provided to the Employee in accordance with Section 3.3 immediately prior to such Qualifying Termination for a period ending on the earliest of (i) June 30, 2000, (ii) the date of the Employee's employment by a third party on a substantially full-time basis, (iii) the date six months after the effective date of such Qualifying Termination, or (iv) the death of the Employee. Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee such health, disability and term life insurance benefits as may have been provided to the Employee in accordance with Section 3.3 immediately prior to such Qualifying Termination (subject to changes in the terms of such coverage by the provider as may be applicable to the Company as a whole) for a period ending on the earliest of (A) the date of the Employee's employment by a third party on a substantially full-time basis, (B) the death of the Employee and (C) the date upon which the applicable Severance Period expires.

The Employee shall notify the Company promptly following his acceptance of any offer of employment by a third party. The Employee shall be under no obligation to seek other employment following any Qualifying Termination, and any amounts he earns in any other employment shall not reduce or offset the severance payments or other amounts due hereunder except as specifically provided in this Section 5.2(e).

5.3 Termination for Death or Disability. In the event the Employee's employment is terminated by death or because of disability pursuant to Section 4.5 (a "Section 4.5 Termination"), the Company shall pay or provide to the estate of the Employee or to the Employee, as the case may be, the compensation (including, without limitation, in lieu of the bonuses provided for in Section 3.2, the Pro Rata Fraction of the Severance Bonus Amount for the calendar year in which such termination is effective, which amount will be paid in a one-time lump sum payment within 30 days of the last day of the Employee's actual employment by the Company) and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company.

5.4 Termination Upon Change in Control of the Company.

(a) In the event the Employee's employment is terminated pursuant to Sections 4.3, 4.4 or 4.6 within 12 months following a Change in Control (as defined below) of the Company, the Company shall make a one-time lump sum severance payment (the "Change in Control Severance Payment") to the Employee in

an amount equal to the product of (i) the sum of (A) the annual base salary referred to in Section 3.1 to which the Employee was entitled on the effective date of termination, plus (B) the Severance Bonus Amount for the calendar year in which such termination occurs, multiplied by (ii) three. In such event, the Employee shall not be entitled to the payments to which he would otherwise be entitled pursuant to Section 5.2(b), but shall continue to be entitled to benefits provided by the Company pursuant to and in accordance with Section 5.2(e).

(b) The Change in Control Severance Payment payable under this Section 5.4 shall be made without regard to whether the deductibility of such payment (or any other "parachute payments," as that term is defined in Section 280G of the Internal Revenue Code of 1986, as amended (the "Code"), to or for the Employee's benefit) would be limited or precluded by Section 280G and without regard to whether such payments (or any other "parachute payments" as so defined) would subject the Employee to the federal excise tax levied on certain "excess parachute payments" under Section 4999 of the Code; provided that if the total of all "parachute payments" to or for the Employee's benefit, after reduction for all federal taxes (including the tax described in Section 4999 of the Code, if applicable) with respect to such payments (the "Total After-Tax Payments"), would be increased by

the limitation or elimination of any payment under this Section 5.4, amounts payable under this Section 5.4 shall be reduced to the extent, and only to the extent, necessary to maximize the Total After-Tax Payments. The determination as to whether and to what extent payments under this Section 5.4 are required to be reduced in accordance with the preceding sentence shall be made at the Company's expense by Arthur Andersen LLP, or by such other certified public accounting firm as the Board may designate prior to a Change in Control of the Company. In the event that payments to be made under this Section 5.4 are to be reduced pursuant to this Section 5.4, the Employee shall designate which such payments shall be reduced. In the event of any underpayment or overpayment under this Section 5.4 as determined by Arthur Andersen LLP (or such other firm as may have been designated in accordance with the preceding sentence), the amount of such underpayment or overpayment shall forthwith be paid to the Employee or refunded to the Company, as the case may be, with interest at the applicable federal rate provided for in Section 1274(d) of the Code.

(c) A "Change in Control" of the Company shall occur or be deemed to have occurred in the event that:

(i) any "person", as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (a "Person") other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company, or any corporation owned directly

or indirectly by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company, acquires "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of the Company representing 50% or more of the combined voting power of the Company's then outstanding securities (other than through an acquisition of securities directly from the Company);

(ii) individuals who, as of the date of this Agreement, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a director subsequent to the date of this Agreement whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no "person" (as hereinabove defined) acquires more than 50% of the combined voting power of the Company's then outstanding securities; or

(iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets.

5.5 Survival. The provisions of Sections 5, 7 and 8 shall survive the termination of this Agreement.

6. Stock Options. Promptly following the execution and delivery of this Agreement, the Company shall amend all stock options to purchase shares of capital stock of the Company granted to the Employee pursuant to any stock plan or other employee benefit arrangement of the Company other than the Company's 1990 Stock Option Plan (an "Employer Stock Option Plan"), which are outstanding as of the

effective date of this Agreement, to include the provisions set forth on Exhibit A attached hereto. In addition, the Company agrees that any stock options to purchase shares of capital stock of the Company granted to the Employee during the Employment Period pursuant to any Employer Stock Option Plan shall include the provisions set forth on Exhibit A attached hereto. Notwithstanding the foregoing to the contrary, no provision that is set forth on Exhibit A attached hereto shall be included in a stock option if such provision is prohibited from being included in such stock option by the Employer Stock Option Plan pursuant to which such stock option was granted.

7. Non-Compete.

(a) During the Employment Period and for a period of two (2) years after the termination or expiration thereof, the Employee will not directly or indirectly:

(i) as an individual proprietor, partner, stockholder, officer, employee, director, joint venturer, investor, lender, or in any other capacity whatsoever (other than as the holder of not more than one percent (1%) of the total outstanding stock of a publicly held company), engage in the business (the "Restricted Business") of developing, producing, marketing, selling or performing

products or services of the kind or type developed or being developed, produced, marketed, sold or performed by the Company while the Employee was employed by the Company (provided that following the expiration or termination of the Employment Period, (a) the Employee may act as an employee of or consultant to a person or entity which engages in the Restricted Business so long as the Employee does not himself engage in or assist the person or entity in engaging in the Restricted Business by virtue of such employment or consulting relationship; (b) the Employee may serve as a senior executive in a corporation or other entity that has a division or subsidiary that reports to the Employee and that engages in the Restricted Business if the Employee is no more than nominally involved in the day-to-day operations or business practices of such

division or subsidiary; and (c) the Employee may provide investment banking services to corporations or other entities engaged in the Restricted Business relating to financing, mergers, acquisitions and dispositions); or

(ii) recruit, solicit or induce, or attempt to induce, any employee or employees of the Company to terminate their employment with, or otherwise cease their relationship with, the Company; or

(iii) divert or take away, or attempt to divert or to take away, the business or patronage, of any of the clients, customers or accounts, or prospective clients, customers or accounts, of the Company which were contacted, solicited or served by the Employee while employed by the Company.

(b) If any restriction set forth in this Section 7 is found by any court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it shall be interpreted to extend only over the maximum period of time, range of activities or geographic area as to which it may be enforceable.

(c) The restrictions contained in this Section 7 are necessary for the protection of the business and goodwill of the Company and are considered by the Employee to be reasonable for such purpose. The Employee agrees that any breach of this Section 7 will cause the Company substantial and irreparable damage and therefore, in the event of any such breach, in addition to such other remedies which may be available, the Company shall have the right to seek specific performance and injunctive relief.

8. Inventions and Proprietary Information.

8.1 Inventions.

(a) All inventions, discoveries, computer programs, data, technology, designs, innovations and improvements (whether or not patentable and whether or not copyrightable) related to the business of the Company which are made, conceived, reduced to practice, created, written, designed or developed by the

Employee, solely or jointly with others and whether during normal business hours or otherwise, during his employment by the Company pursuant to this Agreement ("Inventions") shall be the sole property of the Company. The Employee hereby assigns to the Company all such Inventions and any and all related patents, copyrights, trademarks, trade names, and other industrial and intellectual property rights and applications therefor, in the United States and elsewhere and appoints any officer of the Company as his duly authorized attorney, but without any out-of-pocket expense to the Employee, to execute, file, prosecute and protect the same before any government agency, court or authority. The Employee hereby waives all claims to moral rights in any Invention. Upon the request of the Company and at the Company's expense, the Employee shall execute such further assignments, documents and other instruments as may be necessary or desirable to fully and completely assign all such Inventions to the Company and to assist the Company in applying for, obtaining and enforcing patents or copyrights or other rights in the United States and in any foreign country with respect to any such Invention.

(b) The Employee shall promptly disclose to the Company all such Inventions and will maintain adequate and current written records (in the form of notes, sketches, drawings and as may be reasonably specified by the Company) to document the conception and/or first actual reduction to practice of any such Invention. Such written records shall be available to and remain the sole property of the Company at all times.

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8.2 Proprietary Information.

(a) The Employee acknowledges that his relationship with the Company is one of high trust and confidence and that in the course of his employment by the Company he will have access to and contact with Proprietary Information. The Employee agrees that he will not, during the Employment Period or at any time thereafter, disclose to others, or use for his benefit or the benefit of others, any Proprietary Information or any Invention.

(b) For purposes of this Agreement, Proprietary Information shall mean all information (whether or not patentable and whether or not copyrightable) owned, possessed or used by the Company, including, without limitation, any Invention, formula, formulation, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical data, know-how, computer program, software, software documentation, hardware design, technology, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost and employee list that is communicated to, learned of, developed or otherwise acquired by the Employee in the course of his employment by the Company.

(c) The Employee's obligations under this Section 8.2 shall not

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apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by the Employee of the terms of this Section 8.2, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, (iii) is approved for release by written authorization of the Board of Directors or an authorized employee of the Company, (iv) is communicated to the Employee by a third party under no duty of confidentiality with respect to such information to the Company or another party, or (v) is required to be disclosed by the Employee to comply with applicable laws, governmental regulations, or court order, provided that the Employee provides prior written notice of such disclosure to the Company and an opportunity for the Company to object to such disclosure and further provided that the Employee cooperates with the Company and takes reasonable and lawful actions requested by the Company (the out-of-pocket costs of which shall be paid by the Company) to avoid and/or minimize the extent of such disclosure.

(d) Upon termination of this Agreement or at any other time upon request by the Company, the Employee shall promptly deliver to the Company all records, files, memoranda, notes, designs, data, reports, price lists, customer lists, drawings, plans, computer programs, software, software documentation, sketches, laboratory and research notebooks and other documents (and all copies or reproductions of such materials in his possession or control) belonging to the Company.

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(e) The Employee represents that the Employee's employment by the Company and the performance by the Employee of his obligations under this Agreement do not, and shall not, breach any agreement that obligates him to keep in confidence any trade secrets or confidential or proprietary information of his or of any other party or to refrain from competing, directly or indirectly, with the business of any other party. The Employee shall not disclose to the Company, and the Company shall not request that the Employee disclose, any trade secrets or confidential or proprietary information of any other party.

(f) The Employee acknowledges that the Company from time to

time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on the Company regarding inventions made during the course of work under such agreements or regarding the confidential nature of such work. If the Employee's duties hereunder will require disclosures to be made to him subject to such obligations and restrictions, the Employee agrees to be bound by them and to take all action necessary to discharge the obligations of the Company under such agreements.

8.3 Remedies. The Employee acknowledges that any breach of the provisions of this Section 8 shall result in serious and irreparable injury to the

Company for which the Company cannot be adequately compensated by monetary damages alone. The Employee agrees, therefore, that, in addition to any other remedy it may have, the Company shall be entitled to seek to enforce the specific performance of this Agreement by the Employee and to seek both temporary and permanent injunctive relief (to the extent permitted by law) without the necessity of proving actual damages.

9. Spin-out Policy. The Company currently plans to transfer certain of its technology to affiliated entities in which the Company and third party investors will hold equity interests. As part of such strategy, the Company anticipates granting or causing such entities to grant to the Employee restricted or founders shares of capital stock of such entities or stock options to purchase shares of capital stock of such entities in connection with the transfer of technology to such entities and in connection with the provision of services to such entities thereafter. The Company anticipates that the number of shares of capital stock to be granted to the Employee or to be issuable upon exercise of stock options granted to the Employee shall be commensurate with the Employee's equity ownership of the Company; provided that the determination of the Employee's equity ownership of the Company shall be calculated on a fully-diluted basis and without including any shares of Common Stock or other securities of the Company acquired by the Employee from persons or entities other than the Company; and provided further that the actual number of shares of capital stock or stock options to purchase shares of capital stock to be

granted to the Employee shall be determined by the Compensation Committee of the Board of Directors of the Company. The Employee acknowledges that there can be no assurance that the Company will create or transfer its technology to any affiliated entities, as to how many affiliated entities the Company will create or transfer technology or as to the precise number of shares of capital stock of such affiliated entities to be granted to the Employee or to be issuable upon exercise of stock options to be granted to the Employee or as to the percentage interest of the capital stock of such affiliated entities that such number of shares of capital stock will represent.

10. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or three days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, return receipt requested, addressed to the other party at the address shown above (and, in the case of any notice to the Company, with a copy to David E. Redlick, Esq., Hale and Dorr, 60 State Street, Boston, Massachusetts 02109 and, in the case of any notice to the Employee, with a copy to Michael S. Sirkin, Esq., Proskauer, Rose, Goetz & Mendelson, 1585 Broadway, New York, New York 10036), or at such

other address or addresses of which either party shall notify the other in

accordance with this Section 10.

11. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

12. Entire Agreement. This Agreement and the Employee Options constitute the entire agreement between the parties and supersede all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement and the Employee Options. The Company and the Employee acknowledge and agree that the Employment Agreement dated as of February 6, 1992 between the Company and the Employee (the "Previous Employment Agreement") is hereby terminated and superseded by this Agreement (other than Section 7 of the Previous Employment Agreement which shall survive the termination of the Previous Employment Agreement in accordance with Section 5.5 of the Previous Employment Agreement).

13. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Employee.

14. Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to conflict of laws provisions.

15. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of both parties and their respective successors and assigns; provided, however, that this Agreement may not be assigned by the Company except to a corporation or other person or entity with which or into which the Company may be merged, consolidated or otherwise combined or which may succeed to all or substantially all of its assets or business and which assumes in writing the obligations of the Company hereunder; provided further, however, that the obligations of the Employee are personal and shall not be assigned by him.

16. Definitions. For purposes of this Agreement each of the following defined terms is defined in the Section of this Agreement indicated below:

Defined Term	Section
Agreement	Introduction
Beneficial Ownership	5.4(c)(i)
Benefits Amount	3.3
Board	2
Cause for Termination	4.2
CEO	2
Change in Control	5.4(c)
Change in Control Severance Payment	5.4(a)
Code	5.4(b)
Commencement Date	1
Company	Introduction
Disability	4.5
Division President	2
Employee	Introduction

Employer Stock Option Plan	6
Employment Period	1
Exchange Act	5.4(c)(i)
Failure of the Employee to Perform	4.3
Incumbent Board	5.4(c)(ii)
Inventions	8.1
Management Objectives	3.2
Parachute Payments	5.4(b)
Person	5.4(c)(i)
Previous Employment Agreement	12
Proprietary Information	8.2(b)
Pro Rata Fraction	5.2(a)
Qualifying Termination	5.2(a)
Restricted Business	7(a)(i)
Section 4.5 Termination	5.3
Severance Period	5.2(b)
Total After-Tax Payments	5.4(b)

17. Miscellaneous.

17.1 No delay or omission by either party in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by either party on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.

17.2 The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

17.3 In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

17.4 This Agreement may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

HYBRIDON, INC.

By: /s/ E. Andrews Grinstead, III

Title: CHM/CEO/PRES

EMPLOYEE

/s/ Anthony J. Payne

Anthony J. Payne

Exhibit A

Provisions to be Included in Employee Options

A. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated by the Company pursuant to Section 4.4 of the Employment Agreement dated as of March 1, 1997 between the Company and the Employee, as amended from time to time (the "Employment Agreement"), or by the Employee pursuant to Section 4.6 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary,

(i) upon the effective date of termination of the Employee's employment with the Company (the "Employment Termination Date"), the exercisability of such stock option shall be accelerated by two years so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the second anniversary of the Employment Termination Date; and

(ii) such stock option shall become exercisable for a period of two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

B. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated pursuant to Section 4.5 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary, upon the Employment Termination Date, the exercisability of such stock option shall be accelerated by one year so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the first anniversary of the Employment Termination Date.

C. (i) If, prior to the expiration date of the stock option, a Change in Control (as defined in the Employment Agreement) of the Company occurs, then notwithstanding anything in such stock option to the contrary,

(a) if the Change in Control of the Company, regardless of when it is to be consummated, is not to be accounted for as a "pooling of interests" for financial accounting purposes, or if the Initiation Date of the Change in Control of the Company (as defined by generally accepted accounting principles as in effect from time to time), regardless of whether such Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes, occurs on or after the second anniversary of the date of the Employment Agreement, then, effective upon the consummation of the Change in Control of the Company, the exercisability of such stock option shall be accelerated in full (without regard to the application of Section 280G of the Code) so that such stock option shall become exercisable to purchase all of the shares of Common Stock covered by such stock option;

(b) if the Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes and if the Initiation Date of the Change in Control of the Company occurs prior to the second anniversary of the date of the Employment Agreement, then (I) the portion of such stock option that has not vested as of the date immediately prior to the consummation of the Change in Control of the Company (the "Unvested Portion") shall terminate and (II) the Employee shall be entitled to receive, upon the consummation of the Change in Control of the Company, shares of Common Stock of the person that acquired shares of the Company's Common Stock in connection with the Change in Control (the "Acquiror") having a Fair Market Value (as defined below) equal to the Inherent Equity Value of the Unvested Portion (as defined below); and

(c) such stock option shall become exercisable for a period of

two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

(ii) For purposes of this Paragraph C, the following terms shall have the meanings set forth below:

(a) The "Fair Market Value" of the Common Stock of the Acquiror shall be determined by dividing (I) the Fair Market Value of Hybridon Common Stock (as defined below) by (II) the number of shares of the Acquiror's Common Stock for which one share of Common Stock of the Company will be exchanged in the Change of Control of the Company.

(b) If there is a written agreement between the Company and the Acquiror for the Change in Control of the Company, and such agreement establishes an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, then such amount shall be deemed to be the "Fair Market Value of Hybridon Common Stock". If there is not a written agreement between the Company and the Acquiror for the Change in Control of the Company, or if any such agreement does not establish an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, the "Fair Market Value of Hybridon Common Stock" shall be the last reported sale price per share of the Company's Common Stock on the Nasdaq National Market, or on such other nationally recognized exchange or trading system upon which the Company's Common Stock is listed, on such date or, if no such price is reported on such date, such price on the most recent preceding business day for which such price is reported.

(c) The "Inherent Equity Value of the Unvested Portion" shall equal the fair market value of the Unvested Portion on the last business day immediately preceding the consummation of the Change in Control of the Company, as determined by discounting, at the then current interest rate on one-year Treasury Bills, to such day from the dates of future vesting of the Unvested Portion, the difference between the Fair Market Value of Hybridon Common Stock and the exercise prices of the Unvested Portion, multiplied by the number of shares vesting on such future dates.

(iii) Notwithstanding the foregoing, if the Change in Control of the Company is intended to be accounted for as a "pooling of interests" for financial accounting purposes, and if any provision contained in this paragraph C would preclude accounting for the Change in Control of the Company as a "pooling of interests" for financial accounting purposes, then any such provision in this paragraph C shall be null and void.

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Exhibit 10.42

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement"), made this 1st day of March, 1997, is entered into by and between Hybridon, Inc., a Delaware corporation with its principal place of business at One Innovation Drive, Worcester, Massachusetts 01605 (the "Company"), and Sudhir Agrawal, residing at 61 Lamplighter Drive, Shrewsbury, MA 01545 (the "Employee").

The Company desires to employ the Employee, and the Employee desires to be employed by the Company. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1. Term of Employment. The Company hereby agrees to employ the Employee, and the Employee hereby accepts employment with the Company, upon the terms set forth in this Agreement, for the period commencing on July 1, 1996 (the "Commencement Date") and ending on June 30, 2000, unless sooner terminated in accordance with the provisions of Section 4 (the "Employment Period").

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2. Title; Capacity. During the Employment Period, the Employee shall serve as Senior Vice President of Discovery and Chief Scientific Officer of the Company. The Employee shall be subject to the supervision of, and shall have such authority as is delegated to him by, the Chief Executive Officer of the Company (the "CEO") or the Board of Directors of the Company (the "Board") consistent with his positions as Senior Vice President of Discovery and Chief Scientific Officer. The Employee hereby accepts such employment and agrees to undertake the duties and responsibilities normally inherent in such position and such other duties and responsibilities as the CEO or the Board shall from time to time reasonably assign to him consistent with his positions as Senior Vice President of Discovery and Chief Scientific Officer.

During the Employment Period, the Employee shall, subject to the direction and supervision of the CEO and the Board, devote his full business time, best efforts, business judgment, skill and knowledge to the advancement of the Company's business and interests and to the discharge of his duties and responsibilities hereunder and shall not engage in any other business activity, except as may be approved in advance by the Board or (i) to maintain the Employee's Visiting Scholar status and privileges with the Worcester Foundation for Biomedical Research, Inc. ("WFBR"), (ii) to serve as a scientific consultant to Paul C. Zamecnik with respect to research conducted at WFBR under a grant from the National Institutes of Health,

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and (iii) to engage in ordinary and customary interactions with the scientific and academic communities, including reviewing articles and grants, editing books and attending conferences; provided, however, that notwithstanding the foregoing, the Employee shall at all times devote at least 95% of his full business time to the discharge of his duties for the Company hereunder.

The Employee agrees to abide by the rules, regulations, instructions, personnel practices and policies of the Company, and any changes therein which may be adopted from time to time by the Company, as such rules, regulations, instructions, personnel practices and policies may reasonably be applied to the Employee as Senior Vice President of Discovery and Chief Scientific Officer.

3. Compensation and Benefits.

3.1 Salary. The Company shall pay the Employee, in accordance with the Company's standard payroll practices in effect from time to time, an annual base salary of $250,000, which amount shall be subject to increase as provided in the next sentence. The Company agrees to review the Employee's annual base salary on an annual basis no later than April 30 of each calendar year commencing in 1997 to consider a merit increase in such annual base salary for such calendar year based upon the performance of the Employee during the prior calendar year. Any such

merit increase shall be effective as of the first day of such calendar year. If the Employee's annual base salary is increased in accordance with the previous sentence, it shall not be subject to decrease thereafter without the consent of the Employee. In the event that the Employee is, or is to be, employed for less than a full calendar month, the semi-monthly installments of the annual base salary shall be appropriately adjusted.

3.2 Bonus. For each calendar year of the Company, the Employee shall be entitled to receive a cash bonus, depending upon the achievement by the Employee and/or the Company of management objectives to be set by the CEO and the Board ("Management Objectives") with respect to such calendar year prior to the beginning of such calendar year.

All bonuses, if any, for a calendar year shall be payable no later than January 31 of the ensuing calendar year; provided, however, that if financial information necessary for the Board to determine whether a bonus with respect to a particular calendar year has been earned is not available as of January 31 of the ensuing calendar year, the Company may defer payment of the bonus for the prior calendar year until no later than March 31 of such ensuing calendar year.

Notwithstanding anything herein to the contrary, in the event of any termination of the Employee's employment hereunder for any reason whatsoever (whether by the Employee or the Company), any unpaid bonus payable in

accordance with this Section 3.2 for the calendar year preceding the calendar year in which such termination occurs shall be paid to the Employee in accordance with this Section 3.2.

3.3 Fringe Benefits; Vacation. The Employee shall be entitled to participate in the benefit and fringe benefit programs afforded by the Company to its executives from time to time; provided, however, that the Company shall be required to pay or contribute to such programs in respect of the Employee for any calendar year of the Company an amount equal to 20% of the Employee's annual base salary for such calendar year (the "Benefits Amount"). The Benefits Amount shall not include contributions made by the Company to FICA or FUTA or similar legally required payments, expense reimbursements, vacation or any equity incentives granted to the Employee. If the Company, after providing a reasonably comprehensive benefit and fringe benefit program for the Employee, fails to spend for a calendar year the entire Benefits Amount for such calendar year, the entire unspent Benefits Amount shall be paid to the Employee in cash within 60 days after the end of such calendar year. The Employee shall be entitled to paid vacation in accordance with the Company's standard vacation policies in effect from time to time (such policies as in effect on the date hereof providing that the Employee is entitled

to six weeks paid vacation per calendar year based on his years of service to date).

3.4 Reimbursement of Expenses. The Company shall reimburse the Employee for all reasonable travel, entertainment and other expenses incurred or paid by the Employee in connection with, or related to, the performance of his duties, responsibilities or services under this Agreement, upon presentation by the Employee of documentation, expense statements, vouchers and/or such other supporting infor mation as the Company may reasonably request; provided, however, that the amount available for such travel, entertainment and other expenses may be fixed in advance by the Board consistent with the Employee's positions and responsibilities as Senior Vice President of Discovery and Chief Scientific Officer of the Company.

3.5 Other Plans. Nothing herein shall be construed as making the Employee ineligible to participate in and receive awards or grants under any equity incentive plan of the Company in accordance with the terms thereof in which the Employee would otherwise be eligible to participate.

4. Employment Termination. The employment of the Employee by the Company pursuant to this Agreement shall terminate upon the occurrence of any of the following:

4.1 Expiration of the Employment Period in accordance with Section 1.

4.2 At the election of the Company, for cause, immediately upon

written notice by the Company to the Employee. For the purposes of this Section 4.2, "cause" for termination shall be deemed to exist solely upon (a) the occurrence of dis honesty or willful misconduct of the Employee which, in either event, is material and related to his duties as an employee of the Company (including, without limitation, any material breach of the provisions of Section 7 or 8) or (b) the conviction of the Employee of, or the entry of a pleading of guilty or nolo contendere by the Employee to, any crime involving moral turpitude or any felony.

4.3 At the election of the Company, immediately upon written notice to the Employee, upon the occurrence of the material failure of the Employee to perform his reasonably assigned duties for the Company, which failure is not cured within 30 days after the giving of written notice to the Employee by the Company. For purposes of this Section 4.3, "failure of the Employee to perform" shall include, without limitation, refusal by the Employee to perform and inadequate performance by the Employee.

4.4 At the election of the Company, without cause, upon 30 days' prior written notice to the Employee.

4.5 Thirty days after the death or disability of the Employee. As used in this Agreement, the term "disability" shall mean the Employee shall have

been unable to perform the material services contemplated under this Agreement for a period of 90 days, whether or not consecutive, during any 360-day period, due to a physical or mental disability. A determination of disability shall be made by a physician satisfactory to both the Employee and the Company, provided that if the Employee and the Company do not agree on a physician, the Employee and the Company shall each select a physician and these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

4.6 At the election of the Employee, upon not less than 60 days' prior written notice to the Company given promptly after the occurrence of the event giving rise to such termination, in the event of the Company's taking any of the following actions, which actions shall not have been cured within such 60-day period: (a) material and adverse diminution, on a cumulative basis, of the Employee's duties, authority, position, compensation (other than bonus or other discretionary elements of the Employee's compensation) or aggregate benefits, including, without limitation, failure to cause the Employee to retain the positions of Senior Vice President of Discovery and Chief Scientific Officer of the Company; or (b) the relocation of the Company's principal executive offices to a location more than 100 miles outside the city limits of Cambridge, Massachusetts.

5. Effect of Termination.

5.1 Termination by the Company for Cause. In the event the

Employee's employment is terminated by the Company pursuant to Section 4.2, the Company shall pay to the Employee the compensation and benefits otherwise payable to him under Section 3 (other than the bonuses provided for in Section 3.2 for the calendar year in which such termination is effective) through the last day of his actual employment by the Company.

5.2 Termination by the Company Without Cause or for Failure to Perform Duties; Termination by the Employee for Cause.

(a) In the event the Employee's employment is terminated by the Company pursuant to Section 4.3 or 4.4 or is terminated by the Employee pursuant to Section 4.6 (each, a "Qualifying Termination"), the Company shall pay or provide to the Employee the compensation (including, without limitation, in lieu of the bonuses provided for in Section 3.2, a pro rata portion of the Severance Bonus Amount (as defined below) for the calendar year in which such termination is effective determined by multiplying the Severance Bonus Amount by a fraction (the "Pro Rata Fraction"), the numerator of which shall be the number of days between the first day of the calendar year and the date on which the termination is effective and the denominator of which shall be 365) and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company;

provided that the pro rata portion of the Severance Bonus Amount to which the Employee may be entitled pursuant to this Section 5.2(a) shall be paid to the Employee in installments during the six-month period commencing on the effective date of termination in the manner provided in Section 5.2(d).

(b) Except as otherwise provided in Section 5.4, in the event of a Qualifying Termination, the Company shall make severance payments to the Employee at a monthly rate equal to one-twelfth of the sum of (i) the annual base salary referred to in Section 3.1 to which the Employee was entitled on the effective date of such Qualifying Termination plus (ii) the Severance Bonus Amount for the calendar year in which such Qualifying Termination is effective, for the applicable period of time specified below (the "Severance Period"):

(I) in the event the Employee's employment is terminated by the Company pursuant to Section 4.3, the Company shall make such severance payments to the Employee for the six-month period commencing on the effective date of such termination; and

(II) in the event the Employee's employment is terminated by the Company pursuant to Section 4.4 or by the Employee pursuant to Section 4.6, the Company shall make such severance payments to the Employee for the 24-month period commencing on the effective date of such termination.

(c) For purposes of this Agreement, the Severance Bonus Amount for a calendar year shall equal the average of the bonus paid to the Employee pursuant to Section 3.2 of this Agreement for each of the three calendar years immediately preceding such calendar year.

(d) All severance payments provided for in this Section 5.2 shall be made in semi-monthly installments in arrears on the fifteenth day and the last day of each calendar month. Such installments shall be appropriately adjusted in the event a severance payment is due for any partial calendar month.

(e) Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee the fringe benefits other than health, disability and term life insurance benefits as may have been provided to the Employee in accordance with Section 3.3 immediately prior to such Qualifying Termination for a period ending on the earliest of (i) June 30, 2000, (ii) the date of the Employee's employment by a third party on a substantially full-time basis, (iii) the date six months after the effective date of such Qualifying Termination, or (iv) the death of the Employee. Following any Qualifying Termination, the Company shall continue to pay for or provide to the Employee such health, disability and term life insurance benefits as may have been provided to the Employee in accordance with

Section 3.3 immediately prior to such Qualifying Termination (subject to changes in the terms of such coverage by the provider as may be applicable to the Company as a whole) for a period ending on the earliest of (A) the date of the Employee's employment by a third party on a substantially full-time basis, (B) the death of the Employee and (C) the date upon which the applicable Severance Period expires.

The Employee shall notify the Company promptly following his acceptance of any offer of employment by a third party. The Employee shall be under no obligation to seek other employment following any Qualifying Termination, and any amounts he earns in any other employment shall not reduce or offset the severance payments or other amounts due hereunder except as specifically provided in this Section 5.2(e).

5.3 Termination for Death or Disability. In the event the Employee's employment is terminated by death or because of disability pursuant to Section 4.5 (a "Section 4.5 Termination"), the Company shall pay or provide to the estate of the Employee or to the Employee, as the case may be, the compensation (including, without limitation, in lieu of the bonuses provided for in Section 3.2, the Pro Rata Fraction of the Severance Bonus Amount for the calendar year in which such termination is effective, which amount will be paid in a one-time lump sum payment within 30 days of the last day of the Employee's actual employment by the Company)

and benefits payable or provided to him under Section 3 through the last day of his actual employment by the Company.

5.4 Termination Upon Change in Control of the Company.

(a) In the event the Employee's employment is terminated pursuant to Sections 4.3, 4.4 or 4.6 within 12 months following a Change in Control (as defined below) of the Company, the Company shall make a one-time lump sum severance payment (the "Change in Control Severance Payment") to the Employee in an amount equal to the product of (i) the sum of (A) the annual base salary referred to in Section 3.1 to which the Employee was entitled on the effective date of termination, plus (B) the Severance Bonus Amount for the calendar year in which such termination occurs, multiplied by (ii) three. In such event, the Employee shall not be entitled to the payments to which he would otherwise be entitled pursuant to Section 5.2(b), but shall continue to be entitled to benefits provided by the Company pursuant to and in accordance with Section 5.2(e).

(b) The Change in Control Severance Payment payable under this Section 5.4 shall be made without regard to whether the deductibility of such payment (or any other "parachute payments," as that term is defined in Section 280G of the Internal Revenue Code of 1986, as amended (the "Code"), to or for the

Employee's benefit) would be limited or precluded by Section 280G and without regard to whether such payments (or any other "parachute payments" as so defined) would subject the Employee to the federal excise tax levied on certain "excess parachute payments" under Section 4999 of the Code; provided that if the total of all "parachute payments" to or for the Employee's benefit, after reduction for all federal taxes (including the tax described in Section 4999 of the Code, if applicable) with respect to such payments (the "Total After-Tax Payments"), would be increased by the limitation or elimination of any payment under this Section 5.4, amounts payable under this Section 5.4 shall be reduced to the extent, and only to the extent, necessary to maximize the Total After-Tax Payments. The determination as to whether and to what extent payments under this Section 5.4 are required to be reduced in accordance with the preceding sentence shall be made at the Company's expense by Arthur Andersen LLP, or by such other certified public accounting firm as the Board may designate prior to a Change in Control of the Company. In the event that payments to be made under this Section 5.4 are to be reduced pursuant to this Section 5.4, the Employee shall designate which such payments shall be reduced. In the event of any underpayment or overpayment under this Section 5.4 as determined by Arthur Andersen LLP (or such other firm as may have been designated in accordance with the preceding sentence), the amount of such underpayment or overpayment shall forthwith be paid to the Employee or refunded to the Company, as the case may be,

with interest at the applicable federal rate provided for in Section 1274(d) of the Code.

(c) A "Change in Control" of the Company shall occur or be deemed to have occurred in the event that:

(i) any "person", as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (a "Person") other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company, or any corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company, acquires "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of the Company representing 50% or more of the combined voting power of the Company's then outstanding securities (other than through an

acquisition of securities directly from the Company);

(ii) individuals who, as of the date of this Agreement, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a director subsequent to the date of this Agreement whose election, or nomination for

election by the Company's stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no "person" (as hereinabove defined) acquires more than 50% of the combined voting power of the Company's then outstanding securities; or

(iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by

the Company of all or substantially all of the Company's assets.

5.5 Survival. The provisions of Sections 5, 7, 8 and 9 shall survive the termination of this Agreement.

6. Stock Options. Promptly following the execution and delivery of this Agreement, the Company shall amend all stock options to purchase shares of capital stock of the Company granted to the Employee pursuant to any stock plan or other employee benefit arrangement of the Company other than the Company's 1990 Stock Option Plan (an "Employer Stock Option Plan"), which are outstanding as of the effective date of this Agreement, to include the provisions set forth on Exhibit A attached hereto. In addition, the Company agrees that any stock options to purchase shares of capital stock of the Company granted to the Employee during the Employment Period pursuant to any Employer Stock Option Plan shall include the provisions set forth on Exhibit A attached hereto. Notwithstanding the foregoing to the contrary, no provision that is set forth on Exhibit A attached hereto shall be included in a stock option if such provision is prohibited from being included in such stock option by the Employer Stock Option Plan pursuant to which such stock option was granted.

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7. Non-Compete.

(a) During the Employment Period and for a period of two (2) years after the termination or expiration thereof, the Employee will not directly or indirectly:

(i) as an individual proprietor, partner, stockholder, officer, employee, director, joint venturer, investor, lender, or in any other capacity whatsoever (other than as the holder of not more than one percent (1%) of the total outstanding stock of a publicly held company), engage in the business (the "Restricted Business") of developing, producing, marketing, selling products or performing services of the kind or type contemplated, developed or being developed, produced, marketed, sold or performed by the Company while the Employee was employed by the Company; or

(ii) recruit, solicit or induce, or attempt to induce, any employee or employees of the Company to terminate their employment with, or otherwise cease their relationship with, the Company; or

(iii) divert or take away, or attempt to divert or to take away, the business or patronage, of any of the clients, customers or accounts, or prospective clients, customers or accounts, of the Company which were contacted, solicited or served by the Employee while employed by the Company.

Notwithstanding anything in the foregoing to the contrary, the Employee's

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employment by, or rendering of consulting services to, WFBR or any other not-for-profit academic or research organization shall not be deemed a violation of paragraph (a)(i) so long as: (x) to the extent permitted by the patent and confidentiality policies of WFBR or such other organization to which the Employee may then be subject, the Employee notifies the Company of any inventions, improvements, discoveries, methods, developments, software and works of authorship, whether or not patentable or copyrightable (collectively, "Post-Employment Inventions"), made, conceived or reduced to practice by the Employee or under the Employee's direction or jointly with others in the course of the Employee's employment by, or rendering consulting services to, WFBR or such other organization which Post-Employment Inventions are in or related to the Restricted Business or the development, manufacture, use or sale of human or animal therapeutic or diagnostic products or services which make use of oligonucleotides or wholly or partially modified oligonucleotides for any application, and (y) the Employee shall continue to abide by the terms of Section 8 of this Agreement, as such may be applicable following the termination or expiration of the Employee's employment by the Company; provided, however, that the Employee shall have no obligation by virtue of this clause (y) to assign to the Company any invention conceived or reduced to practice by the Employee following the

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termination or expiration of his employment by the Company if such invention did not arise from and was not based upon any confidential or proprietary information of the Company.

The Employee's obligation under paragraph (a)(i) above shall terminate in the event that: (x) the Employee has not breached or threatened to breach any provision of this Agreement, including without limitation Section 8 hereof; (y) the Employee is employed by, or engaged as a consultant to WFBR or another not-for-profit academic or research organization on a full-time basis; and (z) the Company has failed to pay, within 15 days of the date any payment under Section 5.2(b) is due to the Employee, such payment under Section 5.2(b).

(b) If any restriction set forth in this Section 7 is found by any court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it shall be interpreted to extend only over the maximum period of time, range of activities or geographic area as to which it may be enforceable.

(c) The restrictions contained in this Section 7 are necessary for the protection of the business and goodwill of the Company and are considered by the Employee to be reasonable for such purpose. The Employee agrees that any breach of this Section 7 will cause the Company substantial and irreparable damage and therefore, in the event of any such breach, in addition to such other remedies which

may be available, the Company shall have the right to seek specific performance and injunctive relief.

8. Inventions and Proprietary Information.

8.1 Inventions.

(a) All inventions, discoveries, computer programs, data, technology, designs, innovations and improvements (whether or not patentable and whether or not copyrightable) related to the business of the Company which are made, conceived, reduced to practice, created, written, designed or developed by the Employee, solely or jointly with others and whether during normal business hours or otherwise, during his employment by the Company pursuant to this Agreement ("Inventions") shall be the sole property of the Company. The Employee hereby assigns to the Company all such Inventions and any and all related patents, copyrights, trademarks, trade names, and other industrial and intellectual property rights and applications therefor, in the United States and elsewhere and appoints any officer of the Company as his duly authorized attorney, but without any out-of-pocket expense to the Employee, to execute, file, prosecute and protect the same before any government agency, court or authority. The Employee hereby waives all claims to moral rights in any Invention. Upon the request of the Company and at the

Company's expense, the Employee shall execute such further assignments, documents and other instruments as may be necessary or desirable to fully and completely assign all such Inventions to the Company and to assist the Company in applying for, obtaining and enforcing patents or copyrights or other rights in the United States and in any foreign country with respect to any such Invention.

(b) The Employee shall promptly disclose to the Company all such Inventions and will maintain adequate and current written records (in the form of notes, sketches, drawings and as may be reasonably specified by the Company) to document the conception and/or first actual reduction to practice of any such Invention. Such written records shall be available to and remain the sole property of the Company at all times.

8.2 Proprietary Information.

(a) The Employee acknowledges that his relationship with the Company is one of high trust and confidence and that in the course of his employment by the Company he will have access to and contact with Proprietary Information. The Employee agrees that he will not, during the Employment Period or at any time thereafter, subject to the provisions of Section 9 of this Agreement, disclose to others, or use for his benefit or the benefit of others,

any Proprietary Information or any Invention.

(b) For purposes of this Agreement, Proprietary Information

shall mean all information (whether or not patentable and whether or not copyrightable) owned, possessed or used by the Company, including, without limitation, any Invention, formula, formulation, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical data, know-how, computer program, software, software documentation, hardware design, technology, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost and employee list that is communicated to, learned of, developed or otherwise acquired by the Employee in the course of his employment by the Company.

(c) The Employee's obligations under this Section 8.2 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by the Employee of the terms of this Section 8.2, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, (iii) is approved for release by written authorization of the Board of Directors or an authorized employee of the Company, (iv) is communicated to the Employee by a third party under no duty of confidentiality with respect to such information to the Company or another party, or (v) is required to be disclosed by the Employee to comply with applicable laws, governmental regulations, or court

order, provided that the Employee provides prior written notice of such disclosure to the Company and an opportunity for the Company to object to such disclosure and further provided that the Employee cooperates with the Company and takes reasonable and lawful actions requested by the Company (the out-of-pocket costs of which shall be paid by the Company) to avoid and/or minimize the extent of such disclosure.

(d) Upon termination of this Agreement or at any other time upon request by the Company, the Employee shall promptly deliver to the Company all records, files, memoranda, notes, designs, data, reports, price lists, customer lists, drawings, plans, computer programs, software, software documentation, sketches, laboratory and research notebooks and other documents (and all copies or reproductions of such materials in his possession or control) belonging to the Company.

(e) The Employee represents that the Employee's employment by the Company and the performance by the Employee of his obligations under this Agreement do not, and shall not, breach any agreement that obligates him to keep in confidence any trade secrets or confidential or proprietary information of his or of any other party or to refrain from competing, directly or indirectly, with the business of any other party. The Employee shall not disclose to the Company, and the

Company shall not request that the Employee disclose, any trade secrets or confidential or proprietary information of any other party.

(f) The Employee acknowledges that the Company from time to time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on the Company regarding inventions made during the course of work under such

agreements or regarding the confidential nature of such work. If the Employee's duties hereunder will require disclosures to be made to him subject to such obligations and restrictions, the Employee agrees to be bound by them and to take all action necessary to discharge the obligations of the Company under such agreements.

8.3 Remedies. The Employee acknowledges that any breach of the provisions of this Section 8 shall result in serious and irreparable injury to the Company for which the Company cannot be adequately compensated by monetary damages alone. The Employee agrees, therefore, that, in addition to any other remedy it may have, the Company shall be entitled to seek to enforce the specific performance of this Agreement by the Employee and to seek both temporary and permanent injunctive relief (to the extent permitted by law) without the necessity of proving actual damages.

9. Publications. Following the expiration or termination of the Employment Period, the Employee will have a continuing right, on the terms and conditions set forth in this Section 9, to disclose in scientific journals or publications the results of any research performed by the Employee while employed by the Company. The Employee will provide the Company with an advance copy of any proposed publication before submission of such advance copy to any publisher. If the Company informs the Employee, within 30 days of the receipt of such advance copy, that such publication would have an adverse effect on the confidentiality of any confidential information of the Company or on the ability of the Company to obtain, enforce or maintain any intellectual property rights in any proprietary information of the Company, the Employee will delay or prevent such publication as proposed. The Employee will incorporate in such proposed publication prior to its submission such changes, including without limitation deletions, as the Company believes are necessary to preserve the confidentiality of any confidential information, and the Employee will delay such proposed publication until such time as the Company has filed a U.S. patent application covering any proprietary information.

10. Spin-out Policy. The Company currently plans to transfer certain of its technology to affiliated entities in which the Company and third party investors will hold equity interests. As part of such strategy, the Company anticipates granting or causing such entities to grant to the Employee restricted or founders shares of capital

stock of such entities or stock options to purchase shares of capital stock of such entities in connection with the transfer of technology to such entities and in connection with the provision of services to such entities thereafter. The Company anticipates that the number of shares of capital stock to be granted to the Employee or to be issuable upon exercise of stock options granted to the Employee shall be commensurate with the Employee's equity ownership of the Company; provided that the determination of the Employee's equity ownership of the Company shall be calculated on a fully-diluted basis and without including any shares of Common Stock or other securities of the Company acquired by the Employee from persons or entities other than the Company; and provided further that the actual number of shares of capital stock or stock options to purchase shares of capital stock to be granted to the Employee shall be determined by the Compensation Committee of the Board of Directors of the Company. The Employee acknowledges that there can be no assurance that the Company will create or transfer its technology to any affiliated entities, as to how many affiliated entities the Company will create or transfer technology or as to the precise number of shares of capital stock of such affiliated entities to be granted to the Employee or to be issuable upon exercise of stock options to be granted to the Employee or as to the percentage interest of the capital

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stock of such affiliated entities that such number of shares of capital stock will represent.

11. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or three days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, return receipt requested, addressed to the other party at the address shown above (and, in the case of any notice to the Company, with a copy to David E. Redlick, Esq., Hale and Dorr, 60 State Street, Boston, Massachusetts 02109), or at such other address or addresses of which either party shall notify the other in accordance with this Section 11.

12. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

13. Entire Agreement. This Agreement and the Employee Options constitute the entire agreement between the parties and supersede all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement and the Employee Options. The Company and the Employee acknowledge and agree that the Employment Agreement dated as of

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July 1, 1993 between the Company and the Employee is hereby terminated and superseded by this Agreement.

14. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Employee.

15. Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to conflict of laws provisions.

16. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of both parties and their respective successors and assigns; provided, however, that this Agreement may not be assigned by the Company except to a corporation or other person or entity with which or into which the Company may be merged, consolidated or otherwise combined or which may succeed to all or substantially all of its assets or business and which assumes in writing the obligations of the Company hereunder; provided further, however, that the obligations of the Employee are personal and shall not be assigned by him.

17. Definitions. For purposes of this Agreement each of the following defined terms is defined in the Section of this Agreement indicated below:

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Defined Term	Section
Agreement	Introduction
Beneficial Ownership	5.4(c)(i)
Benefits Amount	3.3
Board	2

Cause for Termination	4.2
CEO	2
Change in Control	5.4(c)
Change in Control Severance Payment	5.4(a)
Code	5.4(b)
Commencement Date	1
Company	Introduction
Disability	4.5
Employee	Introduction
Employer Stock Option Plan	6
Employment Period	1
Exchange Act	5.4(c)(i)
Failure of the Employee to Perform	4.3
Incumbent Board	5.4(c)(ii)
Inventions	8.1
Management Objectives	3.2
Parachute Payments	5.4(b)
Person	5.4(c)(i)
Post-Employment Inventions	7(a)
Pro Rata Fraction	5.2(a)
Proprietary Information	8.2(b)
Qualifying Termination	5.2(a)
Restricted Business	7(a)(i)
Section 4.5 Termination	5.3
Severance Period	5.2(b)
Total After-Tax Payments	5.4(b)
WFBR	2

18. Miscellaneous.

18.1 No delay or omission by either party in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver

or consent given by either party on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.

18.2 The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

18.3 In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

18.4 This Agreement may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

HYBRIDON, INC.

By: /s/ E. Andrews Grinstead, III

Title: CHM/CEO/PRES

EMPLOYEE

/s/ Sudhir Agrawal

Sudhir Agrawal

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Exhibit A

Provisions to be Included in Employee Options

A. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated by the Company pursuant to Section 4.4 of the Employment Agreement dated as of March 1, 1997 between the Company and the Employee, as amended from time to time (the "Employment Agreement"), or by the Employee pursuant to Section 4.6 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary,

(i) upon the effective date of termination of the Employee's employment with the Company (the "Employment Termination Date"), the exercisability of such stock option shall be accelerated by two years so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the second anniversary of the Employment Termination Date; and

(ii) such stock option shall become exercisable for a period of two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

B. If, prior to the expiration date of the stock option, the Employee's employment with the Company is terminated pursuant to Section 4.5 of the Employment Agreement, then, notwithstanding anything in such stock option to the contrary, upon the Employment Termination Date, the exercisability of such stock option shall be accelerated by one year so that such stock option shall become exercisable to purchase the number of shares of Common Stock that the Employee would otherwise have been entitled to purchase under the stock option if the Employee's employment had been terminated on the first anniversary of the Employment Termination Date.

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C. (i) If, prior to the expiration date of the stock option, a Change in Control (as defined in the Employment Agreement) of the Company occurs, then notwithstanding anything in such stock option to the contrary,

(a) if the Change in Control of the Company, regardless of when it is to be consummated, is not to be accounted for as a "pooling of interests" for financial accounting purposes, or if the Initiation Date of the Change in Control of the Company (as defined by generally accepted accounting principles as in effect from time to time), regardless of whether such Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes, occurs on or after the second anniversary of the date of the Employment Agreement, then, effective upon the consummation of the Change in Control of the Company, the exercisability of such stock option shall be accelerated in full (without regard to the application of Section 280G of the Code) so that such stock option shall become exercisable to purchase all of the shares of Common Stock covered by such stock option;

(b) if the Change in Control of the Company is to be accounted for as a "pooling of interests" for financial accounting purposes and if the Initiation Date of the Change in Control of the Company occurs prior to the second anniversary of the date of the Employment Agreement, then (I) the portion of such stock option that has not vested as of the date immediately prior to the consummation of the Change in Control of the Company (the "Unvested Portion") shall terminate and (II) the Employee shall be entitled to receive, upon the consummation of the Change in Control of the Company, shares of Common Stock of the person that acquired shares of the Company's Common Stock in connection with the Change in Control (the "Acquiror") having a Fair Market Value (as defined below) equal to the Inherent Equity Value of the Unvested Portion (as defined below); and

(c) such stock option shall become exercisable for a period of two years following the Employment Termination Date; provided that if such stock option is an incentive stock option, then the exercise of the stock option after the three-month period following the Employment Termination Date shall be treated as the exercise of a non-statutory stock option.

(ii) For purposes of this Paragraph C, the following terms shall have the meanings set forth below:

(a) The "Fair Market Value" of the Common Stock of the Acquiror shall be determined by dividing (I) the Fair Market Value of Hybridon Common Stock (as defined below) by (II) the number of shares of the Acquiror's Common Stock for which one share of Common Stock of the Company will be exchanged in the Change of Control of the Company.

(b) If there is a written agreement between the Company and the Acquiror for the Change in Control of the Company, and such agreement establishes an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, then such amount shall be deemed to be the "Fair Market Value of Hybridon Common Stock". If there is not a written agreement between the Company and the Acquiror for the Change in Control of the Company, or if any such agreement does not establish an amount as the fair market value per share of the Company's Common Stock for purposes of the Change in Control of the Company, the "Fair Market Value of Hybridon Common Stock" shall be the last reported sale price per share of the Company's Common Stock on the Nasdaq National Market, or on such other nationally recognized exchange or trading system upon which the Company's Common Stock is listed, on such date or, if no such price is reported on such date, such price on the most recent preceding business day for which such price is reported.

(c) The "Inherent Equity Value of the Unvested Portion" shall equal the fair market value of the Unvested Portion on the last business day immediately preceding the consummation of the Change in Control of the Company, as determined by discounting, at the then current interest rate on one-year Treasury Bills, to such day from the dates of future vesting of the Unvested Portion, the difference between the Fair Market Value of Hybridon Common Stock

and the exercise prices of the Unvested Portion, multiplied by the number of shares vesting on such future dates.

(iii) Notwithstanding the foregoing, if the Change in Control of the Company is intended to be accounted for as a "pooling of interests" for financial accounting purposes, and if any provision contained in this paragraph C would preclude accounting for the Change in Control of the Company as a "pooling of interests" for financial accounting purposes, then any such provision in this paragraph C shall be null and void.

EXHIBIT 10.54

FOURTH AMENDMENT TO LEASE

This Fourth Amendment to Lease is entered into by and between Charles River Building Limited Partnership, a Delaware limited partnership (the "Landlord") and Hybridon, Inc., a Delaware corporation (the "Tenant") as of July 25, 1996. Reference is hereby made to that certain Lease between Landlord and Tenant dated February 4, 1994, as amended by a First Amendment to Lease dated as of November 30, 1995, a Second Amendment to Lease dated as of February 23, 1996 and a Third Amendment to Lease dated as of February 28, 1996 (as affected by this Fourth Amendment to Lease, the "Lease").

WHEREAS, Landlord and Tenant wish to amend the Lease on the terms and conditions hereinafter set forth;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as of the date hereof that the Lease is amended as follows:

1. The following definition set forth in Section 1.1 of the Lease is hereby amended as follows:

A. The definition of "Construction Completion Date" is amended by deleting the date "December 31, 1995" and replacing the same with the following: "May 1, 1997".

EXECUTED as a sealed instrument as of the date first above written.

Landlord:

CHARLES RIVER BUILDING LIMITED PARTNERSHIP, a Delaware limited partnership

By: Pillar Development and Management, Inc., a Delaware corporation

By: /s/ Nasser Menhall

Name: Nasser Menhall
Title:

Tenant:

HYBRIDON, INC., a Delaware corporation

By: /s/ E. Andrews Grinstead, III

Name: E. Andrews Grinstead, III
Title:

EXHIBIT 10.55

FIFTH AMENDMENT TO LEASE

This Fifth Amendment to Lease is entered into by and between CHARLES RIVER BUILDING LIMITED PARTNERSHIP, a Delaware limited partnership, with an address of 875 North Michigan Avenue, Suite 1350, Chicago, Illinois 60611 ("Landlord") and HYBRIDON, INC., a Delaware corporation, with an address of 620 Memorial Drive, Cambridge, Massachusetts 02139 ("Tenant").

Reference is hereby made to that certain Lease between Landlord and Tenant dated February 4, 1994, as amended by a certain First Amendment to Lease dated as of November 30, 1995 (the "First Amendment"), a certain Second Amendment to Lease dated as of February 23, 1996 (the "Second Amendment"), a certain Third Amendment to Lease dated as of February 28, 1996 (the "Third Amendment"), and a certain Fourth Amendment to Lease between Landlord and Tenant dated as of July 25, 1996 (the "Fourth Amendment") (collectively, the "Lease"). Capitalized terms used herein and not otherwise defined shall have the meanings given them in the Lease.

WHEREAS, Landlord and Tenant wish to amend the Lease on the terms and conditions hereinafter set forth.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree that as of the date hereof, the Lease is amended as follows:

Notwithstanding anything to the contrary set forth in the Lease, including, without limitation, Article X entitled "Option to Purchase" Tenant shall have the right and option to purchase the Premises for a purchase price equal to the greater of (i) the "Fair Market Value" (as defined in said Article X of the Lease); and (ii) the aggregate amount outstanding under any first mortgage loan encumbering the Premises, including, without limitation, all outstanding principal, accrued and unpaid interest, late fees and charges, default interest, and any yield maintenance and prepayment penalties and fees outstanding on the date of the exercise of such purchase option. Tenant further agrees that its option to purchase the Premises as set forth in the Lease is fully and unconditionally subordinated to the terms and conditions of any such first mortgage encumbering the Premises now existing or hereafter placed on the Premises and that said option to purchase shall be automatically and irrevocably terminated and canceled upon any foreclosure of said mortgage or the recording by the holder thereof of a deed in lieu of foreclosure. The cancellation and termination of such purchase option shall be automatic upon any foreclosure or recording of a deed in lieu of foreclosure regardless of whether Tenant is in default under the Lease and without the necessity of any further amendments or modifications to the Lease. Notwithstanding the foregoing, however, the holder of said mortgage shall notify Tenant of its intention to foreclose or to record a deed in

lieu of foreclosure with respect to the Premises and Tenant shall have thirty (30) days from the date of receipt of said notice to exercise its option to purchase the Premises for the amount set forth herein. An affidavit signed by the holder of said mortgage recorded in the chain of title to the Premises shall be conclusive and binding evidence that the said holder of said mortgage gave the required notice to Tenant and that Tenant elected not to exercise its option to purchase the Premises.

EXECUTED as a sealed instrument as of the 14th day of March, 1997.

LANDLORD:

CHARLES RIVER BUILDING LIMITED PARTNERSHIP, a Delaware limited partnership

By: Pillar Development and Management, Inc., a Delaware corporation

By: /s/ Robert Harte

Title: Vice President

TENANT:

HYBRIDON, INC., a Delaware corporation

By: /s/ E. Andrews Grinstead, III

Title: Chairman, President & CEO

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Exhibit 10.56

LOAN AND SECURITY AGREEMENT

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This LOAN AND SECURITY AGREEMENT is entered into as of December 31, 1996, by and between SILICON VALLEY BANK ("Bank") and Hybridon, Inc. ("Borrower").

RECITALS

Borrower wishes to obtain credit from Bank, and Bank desires to extend credit to Borrower. This Agreement sets forth the terms on which Bank will advance credit to Borrower, and Borrower will repay the amounts owing to Bank.

AGREEMENT

The parties agree as follows:

1. DEFINITIONS AND CONSTRUCTION

1.1 DEFINITIONS. As used in this Agreement, the following terms shall have the following definitions:

"Accounts" means all presently existing and hereafter arising accounts, contract rights, and all other forms of obligations owing to Borrower arising out of the sale or lease of goods (including, without limitation, the licensing of software and other technology) or the rendering of services by Borrower, whether or not earned by performance. and any and all credit insurance, guaranties, and other security therefor, as well as all merchandise returned to or reclaimed by Borrower and Borrower's Books relating to any of the foregoing.

"Advance" or "Advances" means a loan advance under the Committed Term Facility.

"Affiliate" means, with respect to any Person, any Person that owns or controls directly or indirectly such Person, any Person that controls or is controlled by or is under common control with such Person, and each of such Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, such Persons, managers and members.

Assignment of Lease" means that certain lease assignment from Borrower to the Bank respecting property located at 155 Fortune Boulevard, Milford, Massachusetts (the "Premises").

"Bank Expenses" means all reasonable costs or expenses (including reasonable attorneys' fees and expenses) incurred in connection with the preparation, negotiation, administration, and enforcement of the Loan Documents; and Bank's reasonable attorneys' fees and expenses incurred in amending, enforcing

or defending the Loan Documents (including fees and expenses of appeal or review, or those incurred in any Insolvency Proceeding), whether or not suit is brought.

"Borrower's Books" means all of Borrower's books and records including, without limitation: ledgers; records concerning Borrower's assets or liabilities, the Collateral, business operations or financial condition; and all computer programs, or tape files, and the equipment, containing such information.

"Business Day" means any day that is not a Saturday, Sunday, or other day on which banks in the State of California are authorized or required to close.

"Closing Date" means the date of this Agreement:

"Code" means the Massachusetts Uniform Commercial Code.

"Collateral" means the property described on EXHIBIT A attached hereto.

"Committed Term Facility" means that credit extension of the lesser of the Seven Million Five Hundred Thousand and No/100 ($7,500,000.00) and the Borrowing Base, as described in Section 2 hereunder.

"Contingent Obligation" means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to (i) any indebtedness, lease, dividend, letter of credit or other obligation of another, including, without limitation, any such obligation directly or indirectly guaranteed, endorsed, co-made or discounted or sold with recourse by that Person, or in resect of which that Person is otherwise directly or indirectly liable; (ii) any obligations with respect to undrawn letters of credit issued for the account of that Person; and (iii) all obligations arising under any interest rate, currency or commodity swap agreement, interest rate cap agreement, interest rate collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; provided, however, that the term "Contingent Obligation" shall not include endorsements for collection or deposit in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the stated or determined amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by such Person in good faith; provided, however, that such amount shall not in any event exceed the maximum amount of the obligations under the guarantee or other support arrangement.

"Credit Extension" means the initial Advance or any other extension of credit by Bank for the benefit of Borrower hereunder.

"Current Assets" means, as of any applicable date, all amounts that should, in accordance with GAAP, be included as current assets on the consolidated balance sheet of Borrower and its Subsidiaries as at such date.

"Current Liabilities" means, as of any applicable date, all amounts that should, in accordance with GAAP, be included as current liabilities on the consolidated balance sheet of Borrower and its Subsidiaries, as at such date, plus, to the extent not already included therein, the current portion of Credit Extensions made under this Agreement, and all Indebtedness that is payable upon demand or within one year from the date of determination thereof unless such Indebtedness is renewable or extendable at the option of Borrower or any Subsidiary to a date more than one year from the date of determination, provided however that deferred revenue not refundable and Subordinated Debt shall not be included as part of Current Liabilities.

"Eligible Costs" means one hundred (100%) percent of amounts evidenced by invoices for equipment delivered to and accepted by Borrower on or before December 31, 1996, located at Premises and used for the operation of Borrower s business and one hundred (100%) percent of the amounts evidenced by contractors' requisitions for construction and/or improvements which have been completed at the Premises.

"Equipment" means all present and future machinery, equipment, tenant improvements, furniture, fixtures, vehicles, tools, parts and attachments in which Borrower has any interest;

"ERISA" means the Employment Retirement Income Security Act of 1974, as amended, and the regulations thereunder.

"GAAP" means generally accepted accounting principles as in effect in the United States from time to time.

"Indebtedness" means (a) all indebtedness for borrowed money or the deferred purchase price of property or services, including without limitation reimbursement and other obligations with respect to surety bonds and letters of credit, (b) all obligations evidenced by notes, bonds, debentures or similar instruments, (c) all capital lease obligations and (d) all Contingent Obligations.

"Insolvency Proceeding" means any proceeding commenced by or against any person or entity under any provision of the United States Bankruptcy Code, as amended, or under any other bankruptcy or insolvency law, including

assignments for benefit of creditors, formal or informal moratoria, compositions, extension generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"INTEREST PERIOD" means for each LIBOR Rate Loan, a period of approximately one, two or three months as the Borrower may elect, PROVIDED that the last day of an Interest Period for a LIBOR Rate Loan shall be determined in accordance with the practices of the LIBOR interbank market as from time to time in effect, PROVIDED, FURTHER in all cases such period shall

expire not later than the Maturity Date.

"Interest Rate" shall mean as to: (a) Prime Rate Loans, a rate of one (1.0%) percent plus the Prime Rate, and (b) LIBOR Rate Loans, a rate of three and one-half (3.5%) percent plus the LIBOR Rate (based on the LIBOR Rate applicable for the Interest Period selected by the Borrower).

"Inventory" means all present and future inventory in which Borrower has any interest, including merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products intended for sale or lease or to be furnished under a contract of service, of every kind and description now or at any time hereafter owned by or in the custody or possession, actual or constructive, of Borrower, including such inventory as is temporarily out of its custody or possession or in transit and including any returns upon any accounts or other proceeds, including insurance proceeds, resulting from the sale or disposition of any of the foregoing and any documents of title representing any of the above.

"Investment" means any beneficial ownership of (including stock, partnership interest or other securities) any Person, or any loan, advance or capital contribution to any Person.

"IRC" means the Internal Revenue Code of 1986, as amended, and the regulations thereunder.

"Lien" means any mortgage, lien, deed of trust, charge, pledge, security interest or other encumbrance.

"LIBOR Base Rate" means, for any Interest Period for a LIBOR Rate Loan, the rate of interest per annum determined by Bank to be the per annum rate of interest as to which deposits in United States Dollars are offered to Bank in the London interbank market in which the Bank customarily participates at 11:00 A.M. (Local time in such interbank market) two (2) Business Days before the first day of such Interest Period for a period approximately equal to such Interest Period and in an amount approximately equal to the amount of such Loan.

"LIBOR Rate" shall mean, for any Interest Period for a LIBOR Rate Loan, a rate per annum (rounded upwards, if necessary, to the nearest 1/16 of 1%) equal to (i) the LIBOR Base Rate for such Interest Period divided by (ii) 1 minus the Reserve Requirement for such Interest Period.

"LIBOR Rate Loans" means any Loans made or a portion thereof on which interest is payable based on the LIBOR Rate in accordance with the terms hereof.

"Loan Documents" means, collectively, this Agreement, any note or notes executed by Borrower, and any other present or future agreement entered into between Borrower and/or for the benefit of Bank in connection with this Agreement, all as amended, extended or restated from time to time.

"Material Adverse Effect" means a material adverse effect on (i) the business operations or condition (financial or otherwise) of Borrower and its Subsidiaries taken as a whole or (ii) the ability of Borrower to repay the Obligations or otherwise perform its obligations under the Loan Documents.

"Maturity Date" means January 1, 2002.

"Minimum Liquidity" has the meaning set forth in Section 6.10.

"Negotiable Collateral" means all of Borrower's present and future letters of credit of which it is a beneficiary, notes, drafts, instruments, securities, documents of title, and chattel paper.

"Obligations" means all debt, principal, interest, Bank Expenses and other amounts owed to Bank by Borrower pursuant to this Agreement or any other agreement, whether absolute or contingent, due or to become due, now existing or hereafter arising.

"Payment Date" means the first business day of each month in the case of the Prime Rate Loans or the last day of the applicable Interest Period in the case of LIBOR Rate Loans, commencing on the first such date after the Closing Date and ending on the Maturity Date.

"Permitted Indebtedness" means:

(a) Indebtedness of Borrower in favor of Bank arising under this Agreement or any other Loan Document;

(b) Indebtedness existing on the Closing Date and disclosed in the Schedule;

(c) Subordinated Debt;

(d) Indebtedness to trade creditors incurred in the ordinary course of business; and

(e) Indebtedness secured by Permitted Liens, including purchase money or lease financing which shall not exceed Three Million Three Hundred Thousand and No/100 Dollars ($3,300,000.00) in the aggregate.

"Permitted Investment" means:

(a) Investments existing on the Closing Date disclosed in the Schedule; and

(b) (i) marketable direct obligations issued or unconditionally guaranteed by the United States of America or any agency or any State thereof maturing within one (1) year from the date of acquisition thereof, (ii) commercial paper maturing no more than one (1) year from the date of creation thereof and currently having the highest rating obtainable from either Standard & Poor's Corporation or Moody's Investors Service, Inc. and (iii) certificates of deposit maturing no more than one (1) year from the date of investment therein issued by Bank, including repurchase agreements, money market and hedge programs.

"Permitted Liens" means the following:

(a) Any Liens existing on the Closing Date and disclosed in the Schedule or arising under this Agreement or the other Loan Documents;

(b) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings and as to which adequate reserves are maintained on Borrower's Books in accordance with GAAP, PROVIDED the same have no priority over any of Bank's security interests;

(c) Liens (i) upon or in any Equipment acquired or held

by Borrower or any of its Subsidiaries to secure the purchase price of such Equipment or indebtedness incurred solely for the purpose of financing the acquisition of such Equipment, or (ii) existing on such equipment at the time of its acquisition, PROVIDED that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such equipment.

(e) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (a) through (c) above, PROVIDED that any extension, renewal or replacement Lien shall be

limited to the property encumbered by the existing Lien and the principal amount of the indebtedness being extended, renewed or refinanced does not increase; and

(f) Interests granted to other persons in connection with licensing arrangements and collaborative agreements in the ordinary course of Borrower's business in accordance with historical practices.

"Person" means any individual, sole proprietorship, partnership, limited liability company, joint venture, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or governmental agency.

"Prime Rate" means the variable rate of interest, per annum, most recently announced by Bank, as its "prime rate," whether or not such announced rate is the lowest rate available from Bank.

"Prime Rate Loans" means any Loans made or a portion thereof on which interest is payable based on the Prime Rate in accordance with the terms hereof.

"Regulatory Change" means, with respect to the Bank, any change on or after the date of this Loan Agreement in the United States federal, state or foreign laws or regulations applicable to the Bank, including Regulation D, or the adoption or making on or after such date of any interpretations, directives or requests applying to a class of lenders including Bank of or under any United States federal or state, or any foreign, laws or regulations (whether or not having the force of law) applicable to the Bank by any court or governmental or monetary authority charged with the interpretation or administration thereof.

"Reserve Requirement" means, for any Interest Period, the average maximum rate at which reserves (including any marginal, supplemental or emergency reserves) are required to be maintained during such Interest Period under Regulation D against "Eurocurrency liabilities" (as such term is used in Regulation D) by member banks of the Federal Reserve System. Without limiting the effect of the foregoing, the Reserve Requirement shall reflect any other reserves required to be maintained by the Bank by reason of any Regulatory Change against (i) any category of liabilities which includes deposits by reference to which the LIBOR Rate is to be determined as provided in the definition of LIBOR Base Rate" or (ii) any category of extensions of credit or other assets which include Loans.

"Responsible Officer" means each of the Chief Executive Officer, the President, the Chief Financial Officer and the Controller of Borrower.

"Schedule" means the schedule of exceptions attached hereto, if any.

"Subordinated Debt" means any debt incurred by Borrower that is subordinated to the debt owing by Borrower to Bank on terms acceptable to Bank (and identified as being such by Borrower and Bank).

"Subsidiary" means with respect to any Person, corporation, partnership, company association, joint venture, or any other business entity of which more than fifty percent (50%) of the voting stock or other equity interests is owned or controlled, directly or indirectly, by such Person or one or more Affiliates of such Person.

"Tangible Net Worth" means as of any applicable date, the consolidated total assets of Borrower and its Subsidiaries MINUS, without duplication, and to the extent included as an asset of the Borrower, (i) the sum of any amounts attributable to (a) goodwill, (b) intangible items such as unamortized debt discount and expense, patents, trade and service marks and names, copyrights and research and development expenses except prepaid expenses, and (c) all reserves not already deducted from assets, AND (ii) Total Liabilities.

"Total Liabilities" means as of any applicable date, any date as of which the amount thereof shall be determined, all obligations that should, in accordance with GAAP be classified as liabilities on the consolidated balance sheet of Borrower, including in any event all Indebtedness, but specifically excluding Subordinated Debt.

1.2 ACCOUNTING AND OTHER TERMS. All accounting terms not specifically defined herein shall be construed in accordance with GAAP and all calculations and determinations made hereunder shall be made in accordance with GAAP. When used herein, the term "financial statements" shall include the notes and schedules thereto. The terms "including"/"includes" shall always be read as meaning "including (or includes) without limitation," when used herein or in any other Loan Document.

2. LOAN AND TERMS OF PAYMENT

2.1 CREDIT EXTENSIONS. Borrower promises to pay to the order of Bank, in lawful money of the United States of America, the aggregate unpaid principal amount of all Credit Extensions made by Bank to Borrower hereunder at the time and in the manner provided for hereunder. Borrower shall also pay interest on the unpaid principal amount of such Advances at rates in accordance with the terms hereof.

2.1.1 Term Loan.

(a) Subject to and upon the terms and conditions of this Agreement, Bank shall make a Committed Term Facility available to Borrower in the amount of the lesser of $7,500,000.00 and the Borrowing Base. For purposes

of this Agreement, "Borrowing Base" shall mean an amount equal to one hundred percent (100%) of Eligible Costs. Amounts borrowed pursuant to this Section 2.1 may be repaid at any time during the term of this Agreement, but may not be reborrowed.

(b) Borrower shall pay fifty-nine (59) equal installments of principal in the amount of Sixty-Two Thousand Five Hundred Dollars ($62,500.00) in consecutive monthly payments commencing February 1, 1997, 1996 and on the first business day of each month thereafter until January 1, 2002. On the Maturity Date, Borrower shall pay all outstanding principal owing under the Committed Term Facility together with any costs and accrued and unpaid interest. Interest shall be payable monthly in arrears with each payment of principal unless the Borrower has selected a portion of the Committed Term Facility to be a LIBOR Loan, as set forth below. To evidence the Committed Term Facility, Borrower shall deliver to Bank such invoices for the equipment and construction financed as satisfactory to the Bank in its sole discretion, together with a certain term note of even date herewith made by Borrower in favor of the Bank (the "Term Note").

(c) The Committed Term Facility shall bear interest at the Interest Rate.

(d) The Borrower shall be permitted to select a portion of the Committed Term Facility to be charged at the LIBOR Rate plus three and one-half (3.5%) percent. The portion of the Committed Term Facility which may be converted to a LIBOR Loan shall be amounts not less than Two Million Five Hundred Thousand ($2,500,000.00) Dollars each and not more than the then outstanding principal balance, less all principal payments scheduled to be made during the applicable Interest Period.

2.1.2 LIBOR Loans and Prime Rate Loans; Selection; Conversion.

(a) REQUESTS FOR LOAN; CONFIRMATION OF INITIAL LOANS. Each LIBOR Rate Loan shall be made upon the irrevocable written request of Borrower received by Bank not later than 11:00 a.m. (Santa Clara, California time) on the Business Day three (3) Business Days prior to the date such Loan is made. Each such notice shall specify the date such Loan is to be made, which day shall be a Business Day; the amount of such Loan, the Interest Period for such Loan, and comply with such other requirements as the Bank determines are reasonable or desirable in connection therewith.

(b) Each written request for a LIBOR Rate Loan shall be in the form of a LIBOR Rate Loan Borrowing Certificate as set forth on Exhibit 2.1.2, which shall be duly executed by Borrower.

(c) Unless otherwise selected a set forth herein, the amounts outstanding pursuant to the Committed Term Facility shall be a Prime Rate Loan.

(d) Borrower hereby confirms its request that the Committed Term Facility be initially funded as a Prime Rate Loan.

(e) Borrower may from time to time submit in writing a request that amounts due under the Prime Rate Loan be converted to LIBOR Rate Loans or that any existing LIBOR Rate Loans continue for an additional Interest Period. Such request shall specify the amount of the Prime Rate Loans which will constitute LIBOR Rate Loans (subject to the limits set forth below) and the Interest Period to be applicable to such LIBOR Rate Loans. Borrower may select LIBOR Loans to mature on 30-day, 60-day or 90-day schedules (each a selected "LIBOR Maturity Date"). The entire balance of principal and interest owing under

each such LIBOR Loan shall be due and payable on the LIBOR Maturity Date which the Borrower has selected. Each written request for a conversion to a LIBOR Rate Loan or a continuation of a LIBOR Rate Loan shall be in the form of a LIBOR Rate Conversion/Continuation Certificate as set forth on Exhibit 2.1.2(e), which shall be duly executed by the Borrower. Subject to the terms and conditions contained herein, three (3) Business Days after the Bank's receipt of such a request from Borrower, such Prime Rate Loans shall be converted to LIBOR Rate Loans or such LIBOR Rate Loans shall continue, as the case may be, provided that:

(i) no Event of Default or event which with the giving of a notice or the passage of time or both would constitute an Event of Default exists;

(ii) no party hereto shall have sent any notice of termination of this Loan Agreement;

(iii) Borrower shall have complied with such customary procedures as Bank has established from time to time for Borrower's requests for LIBOR Rate Loans;

(iv) the amount of a LIBOR Rate Loan shall be not less than Two Million Five Hundred Thousand ($2,500,000.00) Dollars or such greater amount which is an integral multiple of $500,000;

(v) the amount owed under the Prime Rate Loan shall be at the time of each scheduled principal payment be at least equal to the scheduled monthly principal payments due at such time;

(vi) the number of LIBOR Rate Loans in existence is not at any time greater than three (3); and

(vii) Bank shall have determined that the Insert Period and LIBOR Rate are available to the Bank and which can be readily determined as of the date of the request for such LIBOR Rate Loan.

Any request by Borrower to convert Prime Rate Loans to LIBOR Rate Loans or continue any existing LIBOR Rate Loans shall be irrevocable. Notwithstanding anything to the contrary contained herein, Bank shall not be required to purchase United States Dollar deposits in the London interbank market or other applicable LIBOR Rate market to find any LIBOR Rate Loans, but the provisions hereof shall be deemed to apply as if the Bank had purchased such deposits to fund the LIBOR Rate Loans.

(f) Any LIBOR Rate Loans shall automatically convert to Prime Rate Loans upon the last day of the applicable Interest Period in accordance with the terms hereof, unless the Borrower has timely requested in writing that such LIBOR Rate Loan continue for an additional Interest Period. Any LIBOR Rate Loans shall, at the Bank's option, convert to Prime Rate Loans in the event that (i) an Event of Default, or an event which with the giving of notice or the passage of time or both would constitute an Event of Default, shall exist; (ii) the Loan Agreement shall terminate; or (iii) the aggregate principal amount of the Prime Rate Loans which have previously been converted to LIBOR Rate Loans, or the aggregate principal amount of existing LIBOR Rate Loans continued, as the case may be, at the beginning of an Interest Period shall at any time during such Interest Period exceed the Committed Term Facility. Borrower agrees to pay to Bank, upon demand by Bank (or Bank may, at its option, charge the Borrower's loan account) any amounts required to compensate Bank for any loss (including loss of anticipated profits), cost or expense incurred by such person, as a

result of the conversion of LIBOR Rate Loans to Prime Rate Loans pursuant to any of the foregoing.

(g) If for any reason (including voluntary or mandatory prepayment or acceleration), Bank receives all or part of the principal amount of a LIBOR Rate Loan prior to the last day of the Interest Period for such Loan, Borrower shall immediately notify the Borrower's account officer at the Bank and, on demand by Bank, pay the Bank the amount (if any) by which (i) the additional interest which would have been payable on the amount so received had it not been received until the last day of such Interest Period exceeds (ii) the interest which would have been recoverable by Bank by placing the amount so received on deposit in the certificate of deposit markets or the offshore currency interbank markets or the United States Treasury investment products, as the case may be, for a period starting on the date on which it was so received and ending on the last day of such Interest Period at the

interest rate determined by Bank in its reasonable discretion. Bank's determination as to such amount shall be conclusive absent manifest error.

(h) Borrower shall pay to Bank, upon demand by Bank, from time to time such amounts as Bank may reasonably determine to be necessary to compensate it for any increase in costs incurred by Bank that Bank reasonably determines are attributable to its making or maintaining the Loans hereunder in respect of any loans relating thereto (such increases in costs and reductions in amounts receivable being herein called "Additional Costs"), in each case resulting from any Regulatory Change which:

(i) changes the basis of taxation of any amounts payable to the Bank in respect of any Loans (other than changes which affect taxes measured by or imposed on the overall net income of Bank by the jurisdiction in which such Bank has its principal office); or

(ii) imposes or modifies any reserve, special deposit or similar requirements relating to any extensions of credit or other assets of, or any deposits with or other liabilities of Bank (including any Loans or any deposits referred to in the definition of "LIBOR Base Rate"); or

(iii) imposes any other condition affecting the Loan Agreement (or any of such extensions of credit or liabilities), provided however that the Bank shall notify the Borrower of its demand for such payment within 90 days of the Bank's discovery of such condition and expense.

Bank will notify Borrower of any event occurring after the date of this Loan Agreement which will entitle Bank to compensation pursuant to this Section as promptly as it obtains knowledge thereof. Bank will furnish Borrower with a statement setting forth the basis and amount of each request by Bank for compensation under this Section. Determinations and allocations by Bank for purposes of this Section of the effect of any Regulatory Change on its costs of maintaining its obligations to make Loans or of making or maintaining Loans or on amounts receivable by it in respect of Loans, and of the additional amounts required to compensate Bank in respect of any Additional Costs, shall be conclusive absent manifest error.

(i) Borrower shall pay to bank, upon the request of the Bank, such amount or amounts as shall be sufficient (in the sole good faith opinion of such Bank) to compensate it for any loss, costs or expense incurred by it as a result of any failure by Borrower to borrow a Loan on the date for such borrowing specified in the relevant notice of borrowing hereunder.

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(j) If Bank shall determine that the adoption or implementation of any applicable law, rule, regulation or treaty regarding capital adequacy, or any change therein, or any change in the interpretation or administration thereof by any governmental authority, central bank or comparable agency charged with the interpretation or administration thereof, or compliance by Bank (or its having the force of law) of any such authority, central bank or comparable agency, has or would have the effect of reducing the rate of return on capital of Bank or any person or entity controlling the Bank (a "Parent") as a consequence of its obligations hereunder to a level below that which Bank (or its Parent) could have achieved but for such adoption, change or compliance (taking into consideration its policies with respect to capital adequacy) by an amount deemed by Bank to be material, then from time to time, within 15 days after demand by Bank, Borrower shall pay to Bank such additional amount or amounts as will compensate Bank for such reduction. A statement of Bank claiming compensation under this Section and setting forth the additional amount or amounts to be paid to it hereunder shall be conclusive absent manifest error.

(k) If at any time Bank, in its sole and absolute discretion, determines that: (i) the amount of the LIBOR Rate Loans for periods equal to the corresponding Interest Periods are not available to the Bank in the offshore currency interbank markets; or (ii) the LIBOR Rate does not accurately reflect the cost to Bank of lending the LIBOR Rate loan, then Bank shall promptly give notice thereof to Borrower, and upon the giving of such notice Bank's obligation to make the LIBOR Rate Loans shall terminate, unless Bank and the Borrower agree in writing to a different interest rate applicable to LIBOR Rate Loans. If it shall become unlawful for Bank to continue to fund or maintain any Loans, or to perform its obligations hereunder, upon demand by Bank, Borrower shall prepay the Loans in full with accrued interest thereon and on all other amounts payable by Borrower hereunder.

2.2 Overadvances. [INTENTIONALLY OMITTED]

2.3 Interest Rates, Payments, and Calculations.

(a) INTEREST RATE. Except as set forth in Section 2.3(b) and except for LIBOR Loans, any Advances shall bear interest, on the average daily balance thereof, at a per annum rate equal to one (1.0%) percent plus the Prime Rate. LIBOR Loans shall bear interest, on the average daily balance thereof, at a per annum rate equal to three and one-half (3.5%) percent plus the LIBOR Rate. Interest on LIBOR Loans shall be due and payable at the end of the applicable Interest Period, as set forth in Section 2.1.2 above.

(b) DEFAULT RATE. All Obligations shall bear interest, from and after the occurrence of an Event of Default, at a rate equal to four (4) percentage points above the interest rate applicable immediately prior to the occurrence of the

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Event of Default. Without limiting the foregoing, the Bank may in its sole discretion agree to permit the Borrower to cure such Event of Default, in which instance the interest rate shall revert to the Interest Rate.

(c) PAYMENTS. Interest on Prime Rate Loans hereunder shall be due and payable on each Payment Date. Borrower hereby authorizes Bank to debit any accounts with Bank, including, without limitation, Account Number 3300041447 for payments of principal and interest due on the Obligations and any other amounts owing by Borrower to Bank. Bank will notify Borrower of all debits which Bank has made against Borrower's accounts. Any such debits against Borrower's account sin no way shall be deemed a set-off. Any interest not paid when due shall be compounded by becoming a part of the Obligations, and such interest shall thereafter accrue interest at the rate then applicable hereunder.

(d) COMPUTATION. In the event the Prime Rate is changed from time to time hereafter, the applicable rate of interest hereunder shall be increased or decreased effective as of 12:01 a.m. on the day the Prime Rate is changed, by an amount equal to such change in the Prime Rate. All interest chargeable under the Loan Document shall be computed on the basis of a three hundred sixty (360) day year for the actual number of days elapsed.

2.4 CREDITING PAYMENTS. Prior to the occurrence of an Event of Default, Bank shall credit a wire transfer of funds, check or other item of payment to such deposit account or Obligation as Borrower specifies. After the occurrence of an Event of Default, the receipt by Bank of any wire transfer of funds, check, or other item of payment, whether directed to Borrower's deposit account with Bank or to the Obligations or otherwise, shall be immediately applied to conditionally reduce Obligations, but shall not be considered a payment in respect of the Obligations unless such payment is of immediately available federal funds or unless and until such check or other item of payment is honored when presented for payment. Notwithstanding anything to the contrary contained herein, any wire transfer or payment received by Bank after 12:00 noon Pacific time shall be deemed to have been received by Bank as of the opening of business on the immediately following Business Day. Whenever any payment to Bank under the Loan Documents would otherwise be due (except by reason of acceleration) on a date that is not a Business Day, such payment shall instead be due on the next Business Day, and additional fees or interest, as the case may be, shall accrue and be payable for the period of such extension.

2.5 FEES. Borrower shall pay to Bank the following:

(a) FACILITY FEE. A Facility Fee equal to Seventy-Five Thousand Dollars ($75,000.00), which fee has been paid in full upon Borrower's acceptance of the commitment to this facility and is fully earned and non-refundable;

(b) FINANCIAL EXAMINATION AND APPRAISAL FEES. Bank's customary fees and out-of-pocket expenses for Bank's audits of Borrower's Accounts, and for each appraisal of Collateral and financial analysis and examination of Borrower performed from time to time by Bank or its agents;

(c) BANK EXPENSES. Upon demand from Bank, including, without limitation, upon the date hereof, all Bank Expenses incurred through the date hereof, including reasonable attorneys' fees and expenses and, after the date hereof, all Bank Expenses, including reasonable attorneys' fees and expenses, as and when they become due. The Bank agrees to notify Borrower of all amounts due under this Section 2.5(c) within 90 days of the Bank's discovery of such costs or expenses.

2.6 ADDITIONAL COSTS. In case any law, regulation, treaty or

official directive or the interpretation or application thereof by any court or any governmental authority charged with the administration thereof or the compliance with any guideline or request of any central bank or other governmental authority (whether or not having the force of law):

(a) subjects Bank to any tax with respect to payments of principal or interest or any other amounts payable hereunder by Borrower or otherwise with respect to the transactions contemplated hereby (except for taxes on the overall net income of Bank imposed by the United States of America or any political subdivision thereof);

(b) imposes, modifies or deems applicable any deposit insurance, reserve, special deposit or similar requirement against assets held by, or deposits in or for the account of, or loans by, Bank; or

(c) imposes upon Bank any other condition with respect to its performance under this Agreement, and the result of any of the foregoing is to increase the cost to Bank, reduce the income receivable by Bank or impose any expense upon Bank with respect to any loans, Bank shall notify Borrower thereof. Borrower agrees to pay to Bank the amount of such increase in cost, reduction in income or additional expense as and when such cost, reduction or expense is incurred or determined, upon presentation by Bank, within ninety (90) days of Bank's discovery of such cost increase, of a statement of the amount and setting forth Bank's calculation thereof, all in reasonable detail, which statement shall be deemed true and correct absent manifest error.

2.7 TERM. Except as otherwise set forth herein, this Agreement shall become effective on the Closing Date and, subject to Section 12.7, shall continue in full force and effect for a term ending on the Maturity Date. The Bank shall discharge any and all liens on the Collateral upon final payment of all Obligations.

3. CONDITIONS OF LOANS

3.1 CONDITIONS PRECEDENT TO INITIAL CREDIT EXTENSION. The obligation of Bank to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, the following:

(a) this Agreement;

(b) the Term Note;

(c) a certificate of the Secretary of Borrower with respect to articles, bylaws, incumbency and resolutions authorizing the execution and delivery of this Agreement;

(d) a negative pledge agreement covering intellectual property;

(e) delivery of a Common Stock Warrant for Sixty-Five Thousand (65,000) shares of the Borrower's common stock, with a minimum five year term, the price of exercise of options to be determined based on the average daily trading price of such stock during the most recent 30 days trading, prior to this date;

(f) the Assignment of Lease and consent of landlord thereto;

(g) an opinion of Borrower's counsel;

(h) confirmation of filing for financing statements (Forms UCC-1);

(i) insurance certificate;

(j) payment of the fees and Bank Expenses then due specified in Section 2.5 hereof;

(k) Certificate of Foreign Qualification (if applicable);

(l) timely receipt by Bank of the Payment/Advance Form in Section 2.1; and

(m) such other documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

3.2 Conditions Precedent to all Credit Extensions.

[INTENTIONALLY OMITTED]

4. CREATION OF SECURITY INTEREST

4.1 GRANT OF SECURITY INTEREST. Borrower grants and pledges to Bank a continuing security interest in all presently existing and hereafter acquired or arising Collateral in order to secure prompt payment of any and all Obligations and in order to secure prompt performance by Borrower of each of its covenants and duties under the Loan Documents. Except as set forth in the Schedule, such security interest constitutes a valid, first priority security interest in the presently existing Collateral, and will constitute a valid, first priority security interest in Collateral acquired after the date hereof. Borrower acknowledges that Bank may place a "hold" on any deposit Account pledged as Collateral to secure the Obligations. Notwithstanding termination of this Agreement, Bank's Lien on the Collateral shall remain in effect for so long as any Obligations are outstanding.

4.2 DELIVERY OF ADDITIONAL DOCUMENTATION REQUIRED. Borrower shall from time to time execute and deliver to Bank, at the request of Bank, all Negotiable Collateral, all financing statements and other documents that Bank may reasonably request, in form satisfactory to Bank, to perfect and continue perfected Bank's security interests in the Collateral and in order to fully consummate all of the transactions contemplated under the Loan Documents.

4.3 RIGHT TO INSPECT. Bank (through any of its officers, employees, or agents) shall have the right, upon reasonable prior notice and at reasonable intervals, from time to time during Borrower's usual business hours, to inspect Borrower's Books and to make copies thereof and to check, test, and appraise the Collateral in order to verify Borrower's financial condition or the amount, condition of, or any other matter relating to, the Collateral.

5. REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 DUE ORGANIZATION AND QUALIFICATION. Borrower and each Subsidiary (if applicable) is a corporation duly existing and in good standing

under the laws of its state of incorporation and qualified and licensed to do business in, and is in good standing in, any state in which the conduct of its business or its ownership of property requires that it be so qualified.

5.2 DUE AUTHORIZATION; NO CONFLICT. The execution, delivery, and performance of the Loan Documents are within Borrower's powers, have been duly authorized, and are not in conflict with nor constitute a breach of any provision contained in Borrower's Articles/Certificate of Incorporation or Bylaws, nor will they constitute an event of default under any material agreement to which Borrower is a party or by which Borrower is bound. Borrower is not in default under any

agreement to which it is a party or by which it is bound, which default could have a Material Adverse Effect.

5.3 NO PRIOR ENCUMBRANCES. Borrower has good and indefeasible title to the Collateral, free and clear of Liens, except for Permitted Liens.

5.4 BONA FIDE ELIGIBLE ACCOUNTS. The Eligible Accounts are bona fide existing obligations. The service or property giving rise to such Eligible Accounts has been performed or delivered to the account debtor or to the account debtor's agent for immediate shipment to and unconditional acceptance by the account debtor. Borrower has not received notice of actual or imminent Insolvency Proceeding of any account debtor whose accounts are included in any Borrowing Base Certificate as an Eligible Account.

5.5 MERCHANTABLE INVENTORY. All Inventory is in all material respects of good and marketable quality, free from all material defects.

5.6 NAME; LOCATION OF CHIEF EXECUTIVE OFFICE. Except as disclosed in the Schedule, Borrower has not done business and will not without at least thirty (30) days' prior written notice to Bank do business under any name other than that specified on the signature page hereof. The chief executive office of Borrower is located at the address indicated in Section 10 hereof.

5.7 LITIGATION. Except as set forth in the Schedule, there are no actions or proceedings pending, or, to Borrower's knowledge, threatened by or against Borrower or any Subsidiary before any court or administrative agency in which an adverse decision could have a Material Adverse Effect or a material adverse effect on Borrower's interest or Bank's security interest in the Collateral.

5.8 NO MATERIAL ADVERSE CHANGE IN FINANCIAL STATEMENTS. All consolidated financial statements related to Borrower and any Subsidiary that have been delivered by Borrower to Bank fairly present in all material respects Borrower's consolidated financial condition as of the date thereof and Borrower's consolidated results of operations for the period then ended. There has not been a material adverse change in the consolidated financial condition of Borrower since the date of the most recent of such financial statements submitted to Bank on or about the Closing Date.

5.9 SOLVENCY. The fair saleable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; the Borrower is not left with unreasonably small capital after the transactions contemplated by this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.10 REGULATORY COMPLIANCE. Borrower and each Subsidiary have met the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. No event has occurred resulting from Borrower's failure to comply with ERISA that is reasonably likely to result in Borrower's incurring any liability that could have a Material Adverse Effect. Borrower is not an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940. Borrower is not engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations G, T and U of the Board of Governors of the Federal Reserve System). Borrower has complied with all the provisions of the Federal Fair Labor Standards Act. Borrower has not violated any statutes, laws, ordinances or rules applicable to it, violation of which could have a Material Adverse Effect.

5.11 ENVIRONMENTAL CONDITION. None of Borrower's or any Subsidiary's properties or assets have ever been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous owners or operators, in the disposal of, or to produce, store, handle, treat, release, or transport, any hazardous waste or hazardous substance other than in accordance with applicable law; to the best of Borrower's knowledge, none of Borrower's properties or assets has ever been designated or identified in any manner pursuant to any environmental protection statute as a hazardous waste or hazardous substance disposal site, or a candidate for closure pursuant to any environmental protection statute; no lien arising under any environmental protection statute has attached to any revenues or to any real or personal property owned by Borrower or any Subsidiary; and neither Borrower nor any Subsidiary has received a summons, citation, notice, or directive from the Environmental Protection Agency or any other federal, state or other governmental agency concerning any action or omission by Borrower or any Subsidiary resulting in the release, or other disposition of hazardous waste or hazardous substances into the environment.

5.12 TAXES. Borrower and each Subsidiary have filed or caused to be filed all tax returns required to be filed on a timely basis, and has paid, or has made adequate provision for the payment of, all taxes reflected therein.

5.13 SUBSIDIARIES. Borrower does not own any stock, partnership interest or other equity securities of any Person, except for Permitted Investments.

5.14 GOVERNMENT CONSENTS. Borrower and each Subsidiary have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all governmental authorities that are necessary for the continued operation of Borrower's business as currently conducted.

5.15 FULL DISCLOSURE. No representation, warranty or other statement made by Borrower in any certificate or written statement furnished to Bank contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading.

6. AFFIRMATIVE COVENANTS

Borrower covenants and agrees that, until payment in full of all outstanding Obligations, Borrower shall do all of the following:

6.1 GOOD STANDING. Borrower shall maintain its and each of its Subsidiaries' corporate existence and good standing in its jurisdiction of incorporation and maintain qualification in each jurisdiction in which the failure to so qualify could have a Material Adverse Effect. Borrower shall maintain, and shall cause each of its Subsidiaries to maintain, to the extent consistent with prudent management of Borrower's business, in force all licenses, approvals and agreements, the loss of which could have a Material Adverse Effect.

6.2 GOVERNMENT COMPLIANCE. Borrower shall meet, and shall cause each Subsidiary to meet, the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. Borrower shall comply, and shall cause each Subsidiary to comply, with all statutes, laws, ordinances and government rules and regulations to which it is subject, noncompliance with which could have a Material Adverse Effect or a material adverse effect on the Collateral or the priority of Bank's Lien on the Collateral.

6.3 FINANCIAL STATEMENTS, REPORTS, CERTIFICATES. Borrower shall deliver to Bank: (a) as soon as available, but in any event within thirty (30) days after the end of each month, a company prepared consolidated balance sheet and income statement or monthly bank and investment statements covering Borrower's consolidated operations during such period, in a form and certified by an officer of Borrower reasonably acceptable to Bank, together with investment statements; (b) as soon as available, but in any event within ninety (90) days after the end of Borrower's fiscal year, audited consolidated financial statements of Borrower prepared in accordance with GAAP, consistently applied, together with an unqualified opinion on such financial statements of an independent certified public accounting firm reasonably acceptable to Bank; (c) within the earlier of five (5) days of filing and five (5) days of the applicable reporting deadline, copies of all statements, reports and notices sent or made available generally by Borrower to its security holders or to any holders of Subordinated Debt and all reports on Form 10-K, 10-Q (together with Borrower's quarterly financial statements) and 8-K filed with the Securities and Exchange Commission; (d) promptly upon receipt of notice thereof, a written report to the Bank of any legal actions pending or threatened against Borrower or any

Subsidiary that is likely to result in damages or costs to Borrower or any Subsidiary of Two Hundred Fifty Thousand Dollars ($250,000) for any individual action or which action may cause damages which could have been asserted against Borrower or its Subsidiaries to exceed Two Hundred Fifty Thousand Dollars ($250,000) in the aggregate; (e) all press releases and any and all other forms of public information, within a reasonable time, in Bank's sole discretion, following the distribution date of same; and (f) such budgets, sales projections, operating plans or other financial information as Bank may reasonably request from time to time.

Borrower shall deliver to Bank with the monthly financial statements a Compliance Certificate signed by a Responsible Officer in substantially the form of EXHIBIT D hereto.

6.4 INVENTORY; RETURNS. Borrower shall keep all Inventory in good and marketable condition, free from all material defects. Returns and

allowances, if any, as between Borrower and its account debtors shall be on the same basis and in accordance with the usual customary practices of Borrower, as they exist at the time of the execution and delivery of this Agreement. Borrower shall promptly notify Bank of all returns and recoveries and of all disputes and claims, where the return, recovery, dispute or claim involves more than Fifty Thousand Dollars ($50,000).

6.5 TAXES. Borrower shall make, and shall cause each Subsidiary to make, due and timely payment or deposit of all material federal, state, and local taxes, assessments, or contributions required of it by law, and will execute and deliver to Bank, on demand, appropriate certificates attesting to the payment or deposit thereof; and Borrower will make, and will cause each Subsidiary to make, timely payment or deposit of all material tax payments and withholding taxes required of it by applicable laws, including, but not limited to, those laws concerning F.I.C.A., F.U.T.A., state disability, and local, state, and federal income taxes, and will, upon request, furnish Bank with proof satisfactory to Bank indicating that Borrower or a Subsidiary has made such payments or deposits; provided that Borrower or a Subsidiary need not make any payment if the amount or validity of such payment is (i) contested in good faith by appropriate proceedings, (ii) is reserved against (to the extent required by GAAP) by Borrower and (iii) no lien other than a Permitted Lien results.

6.6 Insurance.

(a) Borrower, at its expense, shall keep the Collateral insured against loss or damage by fire, theft, explosion, sprinklers, and all other hazards and risks, and in such amounts, as ordinarily insured against by other owners in similar businesses conducted in the locations where Borrower's business is conducted on the date hereof. Borrower shall also maintain insurance relating to Borrower's ownership

and use of the Collateral in amounts and of a type that are customary to businesses similar to Borrowers.

(b) All such policies of insurance shall be in such form, with such companies, and in such amounts as are reasonably satisfactory to Bank. All such policies of property insurance shall contain a lender's loss payable endorsement, in a form satisfactory to Bank, showing Bank as an additional loss payee thereof and all liability insurance policies shall show the Bank as an additional insured, and shall specify that the insurer must give at least twenty (20) days' notice to Bank before canceling its policy for any reason. At Bank's request, Borrower shall deliver to Bank certified copies of such policies of insurance and evidence of the payments of all premiums therefor. All proceeds payable under any such policy shall, at the option of Bank, be payable to Bank to be applied on account of the Obligations.

6.7 PRINCIPAL DEPOSITORY. Borrower shall maintain its principal depository and operating accounts through the Bank.

6.8 TANGIBLE NET WORTH. Borrower shall maintain, as of the last day of each quarter of the Borrower's fiscal year, a Tangible Net Worth on a consolidated basis of not less than Fifteen Million and No/100 Dollars ($15,000,000.00).

6.9 MINIMUM LIQUIDITY. Borrower shall either maintain on a consolidated basis, as of the last calendar day of each month, Minimum Liquidity of Fifteen Million and No/100 Dollars ($15,000,000.00) or satisfy the other requirements of this Section 6.9. "Minimum Liquidity" is defined as

consolidated unencumbered cash on hand (and cash equivalents and marketable securities) plus 50% of accounts receivable. If Borrower's Liquidity is less than $15,000,000.00, Borrower agrees to pledge cash collateral to Bank equal to twenty-five percent (25%) of the then outstanding balance under the Committed Term Facility (combining amounts due under all Prime Rate Loans and LIBOR Loans), pursuant to a Cash Pledge Agreement substantially in the form of Exhibit 6.10 annexed hereto. If Borrower's Liquidity is at any time less than Ten Million and No/100 Dollars ($10,000,000.00). Borrower shall pledge cash collateral to Bank in an amount equal to fifty percent (50%) of the outstanding balance due in the aggregate under the Committed Term Facility. If Borrower's Liquidity is at any time less than Five Million and No/100 Dollars ($5,000,000.00), Borrower shall pledge cash collateral in favor of the Bank in an amount equal to one hundred percent (100%) of the aggregate balance then owing to the Bank under the Committed Term Facility. Borrower's failure to pledge the amounts set forth above within one business day of the earlier of the actual delivery of the Compliance Certificate or the due date of the Compliance Certificate evidencing Borrower's failure to maintain the required Miminum Liquidity shall be an event of default under this Agreement.

6.10 Registration of Intellectual Property Rights.

(a) Borrower shall register or cause to be registered (to the extent not already registered) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, those intellectual property rights listed on Exhibits A, B and C to the Intellectual Property Security Agreement delivered to Bank

by Borrower in connection with this Agreement within thirty (30) days of the date of this Agreement. Borrower shall register or cause to be filed and/or registered (as applicable) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, those additional intellectual property rights developed or acquired by Borrower from time to time in connection with any product prior to the sale or licensing of such product to any third party, including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C. Notwithstanding the foregoing, Borrower may use its reasonable business judgment in determining whether to apply for patent, copyright or trademark protection with the appropriate office or offices, so long as Borrower protects its intellectual property rights in a commercially reasonable manner.

(b) Borrower shall execute and deliver such additional instruments and documents from time to time as Bank shall reasonably request to evidence the negative pledge in favor of the Bank.

(c) Borrower shall (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents, Copyrights, and Mask Works, (ii) use its best efforts to detect infringements of the Trademarks, Patents, Copyrights and Mask Works and promptly advise Bank in writing of material infringements detected and (iii) not allow any Trademarks, Patents, Copyrights, or Mask Works to be abandoned, forfeited or dedicated to the public without the written consent of Bank, which shall not be unreasonably withheld, unless Bank determines that reasonable business practices suggest that abandonment is not appropriate.

(d) Bank shall have the right, but not the obligation, to take, at Borrower's sole expense, any actions that Borrower is required under this Section 6.11 to take but which Borrower fails to take, after fifteen (15) days' notice to Borrower. Borrower shall reimburse and indemnify Bank for all

reasonable costs and reasonable expenses incurred in the reasonable exercise of its rights under this Section 6.11.

6.11 FURTHER ASSURANCES. At any time and from time to time Borrower shall execute and deliver such further instruments and take such further action as may reasonably be requested by Bank to effect the purposes of this Agreement.

7. NEGATIVE COVENANTS

Borrower covenants and agrees that until payment in full of the outstanding Obligations, Borrower will not do any of the following:

7.1 DISPOSITIONS. Convey, sell, lease, transfer or otherwise dispose of (collectively, a "Transfer"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, other than Transfers: (i) of inventory in the ordinary course of business, (ii) of exclusive licenses and similar arrangements for the use of

the property of Borrower or its Subsidiaries in the ordinary course of business, provided however, that Borrower has provided to the Bank, on a quarterly basis, a schedule listing all of its exclusive licenses; (iii) that constitute payment of normal and usual operating expenses in the ordinary course of business; (iv) of worn-out or obsolete Equipment; or (v) Permitted Liens.

7.2 CHANGES IN BUSINESS MANAGEMENT, BUSINESS LOCATIONS. Engage in any business, or permit any of its Subsidiaries to engage in any business, other than the businesses currently engaged in by Borrower and any business substantially similar or related thereto (or incidental thereto), or Anthony Payne or E. Andrews Grinstead cease to be employees or directors of the Borrower and replacements reasonably satisfactory to the Bank are not made within thirty (30) days. Borrower will not, without at least thirty (30) days prior written notification to Bank, relocate its chief executive office or add any new offices or business locations.

7.3 MERGERS OR ACQUISITIONS. Merger or consolidate, or permit any of its Subsidiaries to merge or consolidate, with or into any other business organization, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person without the prior written consent of the Bank.

7.4 INDEBTEDNESS. Create, incur, assume or be or remain liable with respect to any Indebtedness, or permit any Subsidiary so to do, other than Permitted Indebtedness without the prior written consent of the Bank.

7.5 LOANS. Loan money or guarantee obligations of any other party, except that Borrower may provide loans to officers and employees of the Borrower in an amount not to exceed One Hundred Thousand and No/100 Dollars ($100,000.00) to any individual and not to exceed Five Hundred Thousand and No/100 Dollars ($500,000.00) in the aggregate at any time outstanding.

7.6 ENCUMBRANCES. Create, incur, assume or suffer to exist any Lien with respect to any of its property, or assign or otherwise convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries so to do, except for Permitted Liens, without the prior written consent of the Bank.

7.7 DISTRIBUTIONS. Pay any cash dividends or make any other

distribution or payment on account of or in redemption, retirement or purchase of any capital stock other than in connection with or pursuant to a Preferred Stock Investment Agreement to be entered into by the Borrower with certain investors (the "Preferred Stock Agreement") and a Common Stock Investment Agreement to be entered into by the Borrower with an investor (the "Common Stock Agreement") and other related agreements as follows: (i) payment of dividends on the Series I Convertible Preferred Stock, $.01 par value per share ("Series I Preferred Stock"), of the Borrower to be issued pursuant to the Preferred Stock Agreement, payable by the issuance of shares of Series I Preferred Stock, as contemplated by Paragraph 2 of the Preferred Stock Exhibit to the Preferred Stock Agreement previously provided to the Bank, (ii) the repurchase by the Borrower of shares of Common Stock and of Series I Preferred Stock held by the Holders (as defined in the Registration Rights Exhibit to the Preferred Stock Agreement (the "Registration Rights Exhibit") pursuant to Section 6 of the Registration Rights Exhibit previously provided to the Bank, (iii) the repurchase by the Borrower of shares of Common Stock, held by the Investor (as defined in the Common Stock Agreement) pursuant to Section 2.7 of the Common Stock Agreement previously provided to the Bank, (iv) the repurchase by Borrower of shares of Series I Preferred Stock as contemplated by Paragraphs 5G and 6E of the Preferred Stock Exhibit to the Preferred Stock Agreement, (v) the payment by the Borrower to the Investor under the Common Stock Agreement relating to the shares of Common Stock which the Investor is prohibited from purchasing as contemplated by Section 2.8 of the Common Stock Agreement, and (vi) the repurchase by the Borrower of any Series I Preferred Stock issued under the Preferred Stock Agreement or any Common Stock issued under the Common Stock Agreement within seven days from the date of issuance of such stock at a price equal to the price paid to the Borrower for such stock, provided, however, that Borrower may not pay any such cash dividends nor make any other distribution or payment pursuant to clauses (ii), (iii), (iv) and (v) of this Section 7.7 if there has been a default, or such distribution or payment would result in a default, under Section 8.1 of this Agreement or Section 8.2 of this Agreement by reason of a breach of Section 6.8 or 6.9 of this Agreement or failure to provide a Compliance Certificate in accordance with Section 6.3 of this Agreement; and provided further that, notwithstanding the foregoing, no such payment or distribution pursuant to clauses (ii), (iii), (iv) and (v) of this Section 7.7 shall be made unless and until the intended recipients of such payments or distributions shall have signed a subordination agreement on terms reasonably satisfatory to the Bank.

7.8 INVESTMENTS. Directly or indirectly acquire or own, or make any Investment in or to any Person, or permit any of its Subsidiaries so to do, other than Permitted Investments, without the prior written consent of the Bank.

7.9 TRANSACTIONS WITH AFFILIATES. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower except for transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a nonaffiliated Person.

7.10 SUBORDINATED DEBT. Make any payment in respect of any Subordinated Debt, or permit any of its Subsidiaries to make any such payment, except in compliance with the terms of such Subordinated Debt, or amend any provision contained in any documentation relating to the Subordinated Debt without Bank's prior written consent.

7.11 INVENTORY. Store the Inventory with a bailee, warehouseman, or similar party unless Bank has received a pledge of any warehouse receipt covering such Inventory. Except for Inventory sold in the ordinary course of business and except for such other locations as Bank may approve in writing,

Borrower shall keep the Inventory only at the location set forth in Section 10 hereof and such other locations of which Borrower gives Bank prior written notice and as to which Borrower signs and files a financing statement where needed to perfect Bank's security interest.

7.12 COMPLIANCE. Become an "investment company" or a company controlled by an "investment company," within the meaning of the Investment Company Act of 1940, or become principally engaged in, or undertake as one of its

important activities, the business of extending credit for the purpose of purchasing or carrying margin stock, or use the proceeds of any Advance for such purpose; fail to meet the minimum funding requirements of ERISA; permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, which violation could have a Material Adverse Effect or a material adverse effect on the Collateral or the priority of Bank's Lien on the Collateral; or permit any of its Subsidiaries to do any of the foregoing, without the prior written consent of the Bank.

8. EVENTS OF DEFAULT

Any one or more of the following events shall constitute an Event of Default by Borrower under this Agreement:

8.1 PAYMENT DEFAULT. If Borrower fails to pay, when due, any of the Obligations.

8.2 Covenant Default.

(a) If Borrower fails to perform any obligation under Sections 6.3, 6.8, 6.9, 6.10, 6.11, or violates any of the covenants contained in Article 7 of this Agreement, or

(b) If Borrower fails or neglects to perform, keep, or observe any other material term, provision, condition, covenant, or agreement contained in this Agreement, in any of the Loan Documents, or in any other present or future agreement that can be cured, as failed to cure each default within ten (10) days after the Bank's giving of notice thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional reasonable period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to have cured such default shall not be deemed an Event of Default;

8.3 MATERIAL ADVERSE CHANGE. If there (i) occurs a material adverse change in the business, operations, or condition (financial or otherwise) of the Borrower, or (ii) is a material impairment of the prospect of repayment of any portion of the Obligations or (iii) is a material impairment of the value or priority of Bank's security interests in the Collateral;

8.4 ATTACHMENT. If any material portion of Borrower's assets is attached, seized, subjected to a writ or distress warrant, or is levied upon, or comes into the possession of any trustee, receiver or person acting in a similar capacity and

such attachment, seizure, writ or distress warrant or levy has not been removed, discharged or rescinded within ten (10) days, or if Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct all or any material part of its business affairs, or if a judgment or other claim becomes a lien or encumbrance upon any material portion of Borrower's assets, or if a notice of lien, levy, or assessment is filed of record with respect to any of Borrower's assets by the United States Government, or any department, agency, or instrumentality thereof, or by any state, county, municipal, or governmental agency, and the same is not paid within ten (10) days after Borrower receives notice thereof, provided that none of the foregoing shall constitute an Event of Default where such action or event is stayed or an adequate bond has been posted pending a good faith contest by Borrower.

8.5 TRUSTEE ATTACHMENT. If there occurs service upon the Bank of a writ naming the Bank as Trustee of Borrower or of any other similar process of attachment of Borrower's property in possession of the Bank.

8.6 INSOLVENCY. If Borrower becomes insolvent, or if any Insolvency Proceeding is commenced by Borrower, or if an Insolvency Proceeding is commenced against Borrower and is not dismissed or stayed within 30 days (provided that no Advances will be made prior to the dismissal of such Insolvency Proceeding).

8.7 OTHER AGREEMENTS. If there is a default in any agreement to which Borrower is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of One Hundred Thousand Dollars ($100,000) or that could have a Material Adverse Effect.

8.8 SUBORDINATED DEBT. If Borrower makes any payment on account of Subordinated Debt, except to the extent such payment is allowed under any subordination agreement entered into with the Bank.

8.9 JUDGMENTS. If a judgment or judgments for the payment of money in amount, individually or in the aggregate, of at least Two Hundred Fifty Thousand Dollars ($250,000) shall be rendered against Borrower and shall remain unsatisfied and unstayed for a period of ten (10) days (provided that no Credit Extensions will be made prior to the satisfaction or stay of such judgment); or

8.10 MISREPRESENTATIONS. If any material misrepresentation or material misstatement exists now or hereafter in any warranty or representation set forth herein or in any certificate or writing delivered to Bank by Borrower or any Person acting on Borrower's behalf pursuant to this Agreement or to induce Bank to enter into this Agreement or any other Loan Document.

9. BANK'S RIGHTS AND REMEDIES

9.1 RIGHTS AND REMEDIES. Upon the occurrence and during the continuance of an Event of Default, Bank may, at its election, without notice of its election and without demand, do any one or more of the following, all of which are authorized by Borrower:

(a) Declare all Obligations, whether evidenced by this Agreement, by any of the other Loan Documents, or otherwise, immediately due and payable (provided that upon the occurrence of an Event of Default described in Section 8.6 all Obligations shall become immediately due and payable without any action by Bank);

(b) Cease advancing money or extending credit to or for the benefit of Borrower under this Agreement or under any other agreement between Borrower and Bank;

(c) Settle or adjust disputes and claims directly with account debtors for amounts, upon terms and in whatever order that Bank reasonably considers advisable;

(d) Without notice to or demand upon Borrower, make such payments and do such acts as Bank considers necessary or reasonable to protect its security interest in the Collateral. Borrower agrees to assemble the Collateral if Bank so requires, and to make the Collateral available to Bank as Bank may designate. Borrower authorizes Bank to enter the premises where the Collateral is located, to take and maintain possession of the Collateral, or any part of it, and to pay, purchase, contest, or comprise any encumbrance, charge, or lien which in Bank's determination appears to be prior or superior to its security interest and to pay all expenses incurred in connection therewith. With respect to any of Borrower's premises, Borrower hereby grants Bank a license to enter such premises and to occupy the same, without charge;

(e) Without notice to Borrower set off and apply to the Obligations any and all (i) balances and deposits of Borrower held by Bank, or (ii) indebtedness at any time owing to or for the credit or the account of Borrower held by Bank. (The Bank's rights set forth in this Section 9.1(e) are supplementary to the Bank's rights of lien and setoff as set forth in the Term Note and under no circumstances shall this subsection be intended or construed to limit any of the lien and setoff rights set forth in the Term Note.);

(f) Ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell (in the manner provided for herein) the Collateral. Bank is hereby granted a non-exclusive, royalty-free license or other right, solely pursuant to the provisions of this Section 9.1, to use, without charge, Borrower's

labels, patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any property of a similar nature, as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section 9.1, Borrower's rights under all licenses and all franchise agreements shall inure to Bank's benefit;

(g) Sell the Collateral at either a public or private sale, or both, by way of one or more contracts or transactions, for cash or on terms, in such manner and at such places (including Borrower's premises) as Bank determines is commercially reasonable, and apply the proceeds thereof to the Obligations in whatever manner or order it deems appropriate;

(h) Bank may credit bid and purchase at any public sale, or at any private sale to the extent permitted by law; and

(i) Any deficiency that exists after disposition of the Collateral as provided above will be paid immediately by Borrower.

9.2 POWER OF ATTORNEY. Effective only upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably appoints Bank (and any of Bank's designated officers, or employees) as Borrower's true and lawful attorney to: (a) send requests for verification of Accounts or notify account debtors of Bank's security interest in the Accounts; (b) endorse Borrower's name on any checks or other forms of payment or security that may come into Bank's possession; (c) sign Borrower's name on any invoice or bill of lading relating to any Account, drafts against account debtors, schedules and assignments of Accounts, verifications of Accounts, and notices to account debtors; (d) make, settle, and adjust all claims under and decisions with respect to Borrower's policies of insurance; and (e) settle and adjust disputes and claims respecting the accounts directly with account debtors, for amounts and upon terms which Bank determines to be reasonable, provided Bank may exercise such power of attorney to sign the name of Borrower on any of the documents described in Section 4.2 regardless of whether an Event of Default has occurred. The appointment of Bank as Borrower's attorney in fact, and each and every one of Bank's rights and powers, being coupled with an interest, is irrevocable until all of the Obligations have been fully repaid and performed and Bank's obligation to provide advances hereunder is terminated.

9.3 ACCOUNTS COLLECTION. Upon the occurrence and during the continuance of an Event of Default, Bank may notify any Person owing funds to Borrower of Bank's security interest in such funds and verify the amount of such Account. Borrower shall collect all amounts owing to Borrower for Bank, receive in trust all payments as Bank's trustee, and if requested or required by Bank,

immediately deliver such payments to Bank in their original form as received from the account debtor, with proper endorsements for deposit.

9.4 BANK EXPENSES. If Borrower fails to pay any amounts or furnish any required proof of payment due to third persons or entities, as required under the terms of this Agreement, then Bank may do any or all of the following: (a) make payment of the same or any part thereof; (b) set up such reserves under the Committed Term Facility as Bank deems necessary to protect Bank from the exposure created by such failure; or (c) obtain and maintain insurance policies of the type discussed in Section 6.6 of this Agreement, and take any action with respect to such policies as Bank deems prudent. Any amounts so paid or deposited by Bank shall constitute Bank Expenses, shall be immediately due and payable, and shall bear interest at the then applicable rate hereinabove provided, and shall be secured by the Collateral. Any payments made by Bank shall not constitute an agreement by Bank to make similar payments in the future or a waiver by Bank of any Event of Default under this Agreement.

9.5 BANK'S LIABILITY FOR COLLATERAL. So long as the Bank complies with reasonable banking practices, Bank shall not in any way or manner be liable or responsible for: (a) the safekeeping of the Collateral except as provided below; (b) any loss or damage thereto occurring or arising in any manner or fashion from any cause; (c) any diminution in the value thereof; or (d) any act or default of any carrier, warehouseman, bailee, forwarding agency, or other person whomsoever. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower. Without limiting the foregoing, the Bank

shall not in any way or manner be liable or responsible for the safekeeping of the Collateral unless and until the Bank exercises dominion and control over the Collateral and is in possession of the Collateral.

9.6 REMEDIES CUMULATIVE. Bank's rights and remedies under this Agreement, the Loan Documents, and all other agreements shall be cumulative. Bank shall have all other rights and remedies not expressly set forth herein as provided under the Code, by law, or in equity. No exercise by Bank of one right or remedy shall be deemed an election, and no waiver by Bank of any Event of Default on Borrower's part shall be deemed a continuing waiver. No delay by Bank shall constitute a waiver, election, or acquiescence by it. No waiver by Bank shall be effective unless made in a written document signed on behalf of Bank and then shall be effective only in the specific instance and for the specific purpose for which it was given.

9.7 DEMAND; PROTEST. Borrower waives demand, protest, notice of protest, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees at any time held by Bank on which Borrower may in any way be liable.

10. NOTICES

Unless otherwise provided in this Agreement, all notices or demands by any party relating to this Agreement or any other agreement entered into in connection herewith shall be in writing and (except for financial statements and other informational documents which may be sent by first-class mail, postage prepaid) shall be personally delivered or sent by a recognized overnight delivery service, by certified mail, postage prepaid, return receipt requested, or by telefacsimile to Borrower or to Bank, as the case may be, at its addresses set forth below:

If to Borrower	Hybridon, Inc. 620 Memorial Drive Cambridge, Massachusetts Attn: President FAX: 508-752-7001
If to Bank	Silicon Valley Bank 40 William Street, Suite 350 Wellesley, MA 02181 Attn: Phillip Ernst FAX:

The parties hereto may change the address at which they are to receive notices hereunder, by notice in writing in the foregoing manner given to the other.

11. CHOICE OF LAW AND VENUE

The Loan Documents shall be governed by, and construed in accordance with, the internal laws of the Commonwealth of Massachusetts, without regard to principles of conflicts of law. Each of Borrower and Bank hereby submits to the exclusive jurisdiction of the state and Federal courts located in

the Commonwealth of Massachusetts, and, if the courts located in the Commonwealth of Massachusetts are not available, each of Borrower and Bank hereby submits to the exclusive jurisdiction of the state and Federal courts located in the County of Santa Clara, State of California. BORROWER AND BANK EACH HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF ANY OF THE LOAN DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH PARTY RECOGNIZES AND AGREES THAT THE FOREGOING WAIVER CONSTITUTES A MATERIAL INDUCEMENT FOR IT TO ENTER INTO THIS AGREEMENT. EACH PARTY REPRESENTS AND

WARRANTS THAT IT HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

12. GENERAL PROVISIONS

12.1 SUCCESSORS AND ASSIGNS. This Agreement shall bind and inure to the benefit of the respective successors and permitted assigns of each of the parties; provided, however, that neither this Agreement nor any rights hereunder may be assigned by Borrower without Bank's prior written consent, which consent may be granted or withheld in Bank's sole discretion. Bank shall have the right without the consent of or notice to Borrower to sell, transfer, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights and benefits hereunder.

12.2 INDEMNIFICATION. Borrower shall indemnify, defend, protect and hold harmless Bank and its officers, employees, and agents against: (a) all obligations, demands, claims, and liabilities claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or Bank Expenses in any way suffered, incurred, or paid by Bank as a result of or in any way arising out of, following, or consequential to transactions between Bank and Borrower whether under the Loan Documents, or otherwise (including without limitation reasonable attorneys fees and expenses), except for losses caused by Bank's gross negligence or willful misconduct.

12.3 TIME OF ESSENCE. Time is of the essence for the performance of all obligations set forth in this Agreement.

12.4 SEVERABILITY OF PROVISIONS. Each provision of this Agreement shall be severable from every other provision of this Agreement for the purpose of determining the legal enforceability of any specific provision.

12.5 AMENDMENTS IN WRITING, INTEGRATION. This Agreement cannot be amended or terminated except by a writing signed by Borrower and Bank. All prior agreements, understandings, representations, warranties, and negotiations between the parties hereto with respect to the subject matter of this Agreement, if any, are merged into this Agreement and the Loan Documents.

12.6 COUNTERPARTS. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Agreement.

12.7 SURVIVAL. All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations

remain outstanding. The obligations of Borrower to indemnify Bank with respect to the expenses, damages, losses, costs and liabilities described in Section 12.2 shall survive until all applicable statute of limitations periods with respect to actions that may be brought against Bank have run.

12.8 CONFIDENTIALITY. In handling any confidential information Bank shall exercise the same degree of care that it exercises with respect to its own proprietary information of the same types to maintain the confidentiality of any non-public information thereby received or received pursuant to this Agreement except that disclosure of such information may be made (i) to the subsidiaries or affiliates of Bank in connection with their present or prospective business relations with Borrower, (ii) to prospective transferees or purchasers of any interest in the Loans, provided that they have entered into a comparable confidentiality agreement in favor of Borrower and have delivered a copy to Borrower, (iii) as required by law, regulations, rule or order, subpoena, judicial order or similar order, (iv) as may be required in connection with the examination, audit or similar investigation of Bank, and (v) as Bank may deem reasonably necessary to disclose in connection with the good faith exercise any remedies hereunder. Confidential information hereunder shall mean such information and material which Borrower has indicated to Bank to be of a protected or confidential nature and in any event shall not include information that either: (a) is in the public domain or in the knowledge or possession of Bank when disclosed to Bank, or becomes part of the public domain after disclosure to Bank through no fault of Bank; or (b) is disclosed to Bank by a third party, provided Bank does not have actual knowledge that such third party is prohibited from disclosing such information.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed as of the date first above written.

HYBRIDON, INC.

By: /s/ E. Andrews Grinstead III

Title: CEO & President

By: /s/ Anthony J. Payne

Title: Chief Financial Officer

SILICON VALLEY BANK

By: /s/ Philip Ernst

Title:

EXHIBIT A

The Collateral shall consist of all right, title and interest of Borrower in and to the following:

(a) All goods and equipment now owned or hereafter acquired, including, without limitation, all machinery, fixtures, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing, and all attachments, accessories, accessions, replacements, substitutions, additions, and improvements to any of the foregoing, wherever located;

(b) All inventory, now owned or hereafter acquired, including, without limitation, all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products including such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returns upon any accounts or other proceeds, including insurance proceeds, resulting from the sale or disposition of any of the foregoing and any documents of title representing any of the above, and Borrower's Books relating to any of the foregoing;

(c) All contract rights and general intangibles now owned or hereafter acquired, including, without limitation, goodwill, leases, license agreements, franchise agreements, blueprints, drawings, purchase orders, customer lists, route lists, claims, literature, reports, catalogs, income tax refunds, payments of insurance and rights to payment of any kind;

(d) All now existing and hereafter arising accounts, contract rights, royalties, license rights and all other forms of obligations owing to Borrower arising out of the sale or lease of goods, the licensing of technology or the rendering of services by Borrower, whether or not earned by performance, and any and all credit insurance, guaranties, and other security therefor, as well as all merchandise returned to or reclaimed by Borrower and Borrower's Books relating to any of the foregoing;

(e) All documents, cash, deposit accounts, securities, letters of credit, certificates of deposit, instruments and chattel paper now owned or hereafter acquired and Borrower's Books relating to the foregoing; and

(f) Any and all claims, rights and interest in any of the above and all substitutions for, additions and accessions to and proceeds thereof.

Notwithstanding the foregoing, the Collateral shall not include any copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished, now

owned or hereafter acquired, any patents, trademarks, servicemarks and applications therefor, and shall not include any of Borrower's interest as Lessee under that certain lease regarding premises located at 620 Memorial Drive, Cambridge, Massachusetts.

EXHIBIT 10.57

THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED OR EXERCISED UNLESS AND UNTIL SUCH WARRANT AND/OR SHARES OF COMMON STOCK IS REGISTERED UNDER SUCH ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY IS OBTAINED TO THE EFFECT THAT SUCH REGISTRATION IS NOT REQUIRED. THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE RESTRICTIONS ON TRANSFER SET FORTH IN SECTIONS 4 AND 11 OF THIS WARRANT

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Warrant No. 1 Number of Shares: 65,000 (subject to adjustment)

Date of Issuance: December 31, 1996

HYBRIDON, INC.

Common Stock Purchase Warrant

(Void after December 31, 2001)

Hybridon, Inc., a Delaware corporation (the "Company"), for value received, hereby certifies that Silicon Valley Bank (the "Bank"), or its registered assigns (the "Registered Holder"), is entitled, subject to the terms set forth below, upon exercise of this Warrant to purchase from the Company, at any time or from time to time on or after the date of issuance and on or before December 31, 2001 at not later than 5:00 p.m. (Boston, Massachusetts time), sixty-five thousand (65,000) shares of Common Stock, $.001 par value per share, of the Company ("Common Stock"), at a purchase price of $6.90 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the "Warrant Shares" and the "Purchase Price," respectively. This Warrant is being issued by the Company in connection with the Loan and Security Agreement entered into between the Company and the Bank on the date hereof.

1. Exercise.

(a) This Warrant may be exercised by the Registered Holder, in whole or in part, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by such Registered Holder or by such Registered Holder's duly authorized attorney, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise.

(b) Notwithstanding the provisions of subsection 1(a) above, the Registered Holder may, at its option, elect to pay some or all of the Purchase Price payable upon an exercise of this Warrant by cancelling a portion of this Warrant exercisable for such number of Warrant Shares as is determined by dividing (i) the total Purchase Price payable in respect of the number of Warrant Shares being purchased upon such exercise pursuant to this subsection 1(b) by (ii) the excess of the Fair Market Value (as defined below) per Warrant Share as of the effective date of exercise, as determined pursuant to subsection 1(e) below (the "Exercise Date"), over the Purchase Price per share. For example, if (A) this Warrant were exercisable for 100,000 Warrant Shares at an

exercise price of $5.00 per share, (B) the Registered Holder wished to purchase 10,000 Warrant Shares upon exercise of this Warrant and (C) the Fair Market Value per Warrant Share as of the effective date of exercise was $15.00, then the Registered Holder could purchase 10,000 Warrant Shares upon exercise of this Warrant by electing to cancel a portion of this Warrant exercisable for 5,000 Warrant Shares ((10,000 x $5.00) / ($15.00 - $5.00)), and this Warrant would thereafter be exercisable for 85,000 Warrant Shares.

(c) For purposes of this Warrant, the Fair Market Value per Warrant Share shall be determined as follows:

(i) If the Warrant Shares are listed on a national securities exchange, The Nasdaq Stock Market or another nationally recognized exchange or trading system as of the Exercise Date, the Fair Market Value per Warrant Share shall be deemed to be the average closing price per Warrant Share thereon for the 10 trading days immediately preceding (and not including) the Exercise Date;

(ii) If the Warrant Shares are not listed on a national securities exchange, The Nasdaq Stock Market or another nationally recognized exchange or trading system as of the Exercise Date, the Fair Market Value per Warrant Share shall be reasonably determined in good faith by the Board of Directors of the Company.

(d) Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) above.

At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(e) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(e) As soon as practicable after the exercise of this Warrant in full or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as such Registered Holder (upon payment by such Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which such Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which such Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the sum of (A) the number of such shares purchased by the Registered Holder upon such exercise as provided in subsection 1(a) above and (B) the number of Warrant Shares (if any) covered by the portion of this Warrant cancelled in payment of the Purchase Price payable upon such exercise pursuant to subsection 1(b) above.

2. Adjustments.

(a) If outstanding shares of the Company's Common Stock shall be subdivided into a greater number of shares or a dividend in Common Stock shall be paid in respect of Common Stock, the Purchase Price in effect immediately prior to such subdivision or at the record date of such dividend shall simultaneously with the effectiveness of such subdivision or immediately after the record date of such dividend be proportionately reduced. If outstanding shares of Common Stock shall be combined into a smaller number of shares, the Purchase Price in effect immediately prior to such combination shall,

simultaneously with the effectiveness of such combination, be proportionately increased. When any adjustment is required to be made in the Purchase Price, the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(b) If there shall occur any capital reorganization or reclassification of the Company's Common Stock (other than a change in par value or a subdivision or combination as provided for in subsection 2(a) above), or any consolidation or merger of the Company with or into another corporation, or a transfer of all or substantially all of the assets of the Company, then, as part of any such reorganization, reclassification, consolidation, merger or sale, as the case may be, lawful provision shall be made so that the Registered Holder of this Warrant shall have the right thereafter to receive upon the exercise hereof the kind and amount of shares of stock or other securities or property which such Registered Holder would have been entitled to receive if, immediately prior to any such reorganization, reclassification, consolidation, merger or sale, as the case may be, such Registered Holder had held the number of shares of Common Stock which were then purchasable upon the exercise of this Warrant. In any such case, appropriate adjustment (as reasonably determined in good faith by the Board of Directors of the Company) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder of this Warrant, such that the provisions set forth in this Section 2 (including provisions with respect to adjustment of the Purchase Price) shall thereafter be applicable, as nearly as is reasonably practicable, in relation to any shares of stock or other securities or property thereafter deliverable upon the exercise of this Warrant.

(c) When any adjustment is required to be made in the Purchase Price, the Company shall promptly mail to the Registered Holder a certificate setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment. Such certificate shall also set forth the kind and amount of stock or other securities or property into which this Warrant shall be exercisable following the occurrence of any of the events specified in subsection 2(a) or (b) above.

3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall make an adjustment therefor in cash on the basis of the Fair Market Value per Warrant Share, as determined in accordance with subsection 1(c) above.

4. Requirements for Transfer.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the "Act"), or (ii) the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

> "The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be offered, sold or otherwise transferred, pledged or hypothecated unless and until such securities are registered under such Act or an opinion of counsel

satisfactory to the Company is obtained to the effect that such registration is not required."

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144(k) under the Act.

5. No Impairment. The Company will not, by amendment of its charter or through reorganization, consolidation, merger, dissolution, sale of assets or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against impairment.

6. Liquidating Dividends. If the Company pays a dividend or makes a distribution on the Common Stock payable otherwise than in cash out of earnings or earned surplus (determined in accordance with generally accepted accounting principles) except for a stock dividend payable in shares of Common Stock (a "Liquidating Dividend"), then the Company will pay or distribute to the Registered Holder of this Warrant, upon the exercise hereof, in addition to the Warrant Shares purchased upon such exercise, the Liquidating Dividend which would have been paid to such Registered Holder if he had been the owner of record of such Warrant Shares immediately prior to the date on which a record is taken for such Liquidating Dividend or, if no record is taken, the date as of which the record holders of Common Stock entitled to such dividends or distribution are to be determined.

7. Notices of Record Date, etc. In case:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the capital stock of the Company, any consolidation or merger of the Company with or into another corporation (other than a consolidation or merger in which the

Company is the surviving entity), or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will mail or cause to be mailed to the Registered Holder of this Warrant a notice specifying, as the case may be, (i) the date on which a record is to be taken for the purpose of such dividend, distribution or right, and stating the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be mailed at least ten (10) days, or if such advance notice is not practicable, then such shorter period as may be practicable, prior to the record date or effective date for an event specified in subsection 7(a), (b) or (c).

8. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other stock, securities and property, as from time to time shall be issuable upon the exercise of this Warrant.

9. Exchange of Warrants. Upon the surrender by the Registered Holder of any Warrant or Warrants, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Sections 4 and 11 hereof, issue and deliver to or upon the order of such Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of such Registered Holder or as such Registered Holder (upon payment by such Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock called for on the face or faces of the Warrant or Warrants so surrendered.

10. Replacement of Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

11. Transfers, etc.

(a) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. Any Registered Holder may change its or his address as shown on the warrant register by written notice to the Company requesting such change.

(b) Subject to the provisions of Section 4 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company.

(c) Until any transfer of this Warrant is made in the warrant register, the Company may treat the Registered Holder of this Warrant as the absolute owner hereof for all purposes; provided, however, that if and when this Warrant is properly assigned in blank, the Company may (but shall not be obligated to) treat the bearer hereof as the absolute owner hereof for all purposes, notwithstanding any notice to the contrary.

12. Representations of the Registered Holder. The Registered Holder of this Warrant represents and warrants to the Company as follows:

(a) Investment. The Registered Holder is acquiring this Warrant and the Warrant Shares issuable upon the exercise of this Warrant, for its own account for investment and not with a view to, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling the same, except as otherwise may be permitted under applicable securities laws.

(b) Authority. The Registered Holder has full power and authority to enter into and to perform this Warrant in accordance with its terms. The Registered Holder has not been organized, reorganized or recapitalized specifically for the purpose of investing in the Company.

(c) Experience. The Registered Holder has made detailed inquiry concerning the Company, its business and its personnel; the officers of the Company have made available to the Registered Holder the opportunity to ask questions and receive answers concerning the terms and conditions of the this Warrant and the Warrant Shares and to obtain any additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to verify the accuracy of information provided by the Company to the Registered Holder; and the Registered Holder has adequate net worth and means of

providing for its current needs and personal contingencies to sustain a complete loss of its investment in the Company; the Registered Holder's overall commitment to investments which are not readily marketable is not disproportionate to its net worth and the Registered Holder's investment in this Warrant and the Warrant Shares issuable upon exercise of this Warrant will not cause such overall commitment to become excessive.

(d) Accredited Investor. The Registered Holder is an Accredited Investor within the definition set forth in Rule 501(a) promulgated under the Securities Act.

13. Giving of Notices, etc. All notices and other communications from the Company to the Registered Holder of this Warrant shall be in writing and shall be deemed effective (i) upon delivery by hand, (ii) two business days after deposit with an express courier service for delivery no later than two business days after such deposit, addressed to the Registered Holder at the address set forth on the warrant register maintained by the Company, or (iii) upon confirmation of transmittal by telecopy to the Registered Holder, with a hard copy sent in accordance with the preceding clause (ii), to the telecopy number set forth on the warrant register maintained by the Company. All notices and other communications from the Registered Holder of this Warrant to the Company shall be in writing and shall be deemed effective (i) upon delivery by hand, (ii) two business days after deposit with an express courier service for delivery no later than two business days after such deposit, addressed to the Company at its principal office set forth below, or (iii) upon confirmation of transmittal by telecopy, with a hard copy sent in accordance with the preceding clause (ii), to the telecopy number of the Company set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below or change its telecopy number to a number other than as set forth below, it shall give prompt written notice to the Registered Holder of this Warrant in the manner prescribed herein, and thereafter all references in this Warrant to the location of its principal office or telecopy number at the particular time shall be as so specified in such notice.

14. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder of this Warrant shall not have or exercise any rights by virtue hereof as a stockholder of the Company.

15. Change or Waiver. Any term of this Warrant may be changed or waived only by an instrument in writing signed by the party against which enforcement of the change or waiver is sought.

16. Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

17. Governing Law. This Warrant will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

[Corporate Seal]

HYBRIDON, INC.

ATTEST:

By: /s/ Anthony J. Payne

Title:_____

_____

Address: One Innovation Drive
Worcester, MA 01605

Telecopy No.: (508) 752-7001

AGREED AND ACCEPTED:

SILICON VALLEY BANK

By:_____

Title:_____

Address:_____

_____

Telecopy No.:_____

EXHIBIT I

PURCHASE FORM

To:_____ Dated:_____

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. ___), hereby irrevocably elects to purchase _____ shares of the Common Stock covered by such Warrant and herewith makes payment of $_____, and/or pursuant to subsection 1(b) of such Warrant elects to cancel such portion of such Warrant exercisable for _____ Warrant Shares, representing the full purchase price for such shares at the price per share provided for in such Warrant.

Signature:_____

Address:_____

_____

EXHIBIT II

ASSIGNMENT FORM

FOR VALUE RECEIVED, _____ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. ____) with respect to the number of shares of Common Stock covered thereby set forth below, unto:

Name of Assignee Address No. of Shares

Dated:_____ Signature:_____

Dated:_____________ Witness:_______________________________

EXHIBIT 10.58

REGISTRATION RIGHTS AGREEMENT

Agreement dated as of December 31, 1996 by and between HYBRIDON, INC., a corporation organized under the laws of the State of Delaware (the "Company"), and SILICON VALLEY BANK (the "Bank").

INTRODUCTION:

The Company and the Bank have, as of the date hereof, entered into a Loan and Security Agreement (the "Loan Agreement"). Pursuant to the Loan Agreement, the Company has agreed to grant to the Bank a warrant (the "Warrant") to purchase 65,000 shares of Common Stock of the Company.

In consideration of the mutual covenants and promises contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Bank agree as follows:

1. Certain Definitions. As used in this Section 1 and elsewhere in this Agreement, the following terms shall have the following respective meanings:

"Commission" means the Securities and Exchange Commission, or any other Federal agency at the time administering the Securities Act.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, or any similar Federal statute, and the rules and regulations of the Commission issued under such Act, as they each may, from time to time, be in effect.

"Registration Statement" means a registration statement filed by the Company with the Commission for a public offering and sale of securities of the Company (other than (i) a registration statement on Form S-8 or Form S-4, or their successors, or any other form for a limited purpose, (ii) any registration statement covering only securities proposed to be issued in exchange for securities or assets of another corporation), or (iii) any registration statement covering securities issued or issuable pursuant to and in connection with the Preferred Stock Investment Agreement dated as of December __, 1996 between the Company and the Investors (as defined therein) and the Common Stock Investment Agreement dated as of December __, 1996 between the Company and the Investor (as defined therein).

"Registration Expenses" means the expenses described in Section 3.

"Registrable Shares" means (i) the shares of Common Stock issuable upon exercise of the Warrant and (ii) any other shares of Common Stock of the Company issued in respect of such shares (because of stock splits, stock dividends, reclassifica tions, recapitalizations, or similar events); provided, however, that shares of Common Stock which are Registrable Shares shall cease to be Registrable Shares (i) upon any sale pursuant to a Registration Statement, Section 4(1) of the Securities Act or Rule 144 under the Securities Act, (ii) upon the date such shares are eligible for resale under Rule 144(k) under the Securities Act, or (iii) upon any sale in any manner to a person or entity which, by virtue of Section 8 of this Agreement is not entitled to the rights provided in this Agreement.

"Rightsholders" means the Bank and any other person or entity who becomes a Rightsholder under this Agreement pursuant to Section 8.

"Securities Act" means the Securities Act of 1933, as amended, or any similar Federal statute, and the rules and regulations of the Commission

issued under such Act, as they each may, from time to time, be in effect.

2. Registration Rights.

(a) Whenever the Company proposes to file a Registration Statement at any time and from time to time, it will, prior to such filing, give written notice to all Rightsholders of its intention to do so (subject to the limitations set forth in paragraph (c) below) and, upon the written request of a Rightsholder or Rightsholders given within 20 days after the Company provides such notice (which request shall state the intended method of disposition of such Registrable Shares), the Company shall use its best efforts to cause all Registrable Shares which the Company has been requested by such Rightsholder or Rightsholders to register to be registered under the Securities Act to the extent necessary to permit their sale or other disposition in accordance with the intended methods of distribution specified in the request of such Rightsholder or Rightsholders; provided, that the Company shall have the right to postpone or withdraw any registration effected pursuant to this Section 2 without obligation to any Rightsholder.

(b) In connection with any offering under this Section 2 involving an underwriting, the Company shall not be required to include any Registrable Shares in such underwriting

unless the holders thereof accept the terms of the underwriting as agreed upon between the Company and/or other holders of shares of Common Stock or other securities of the Company who have initiated the offering pursuant to certain demand registration rights held by them (the "Initiating Stockholders") and the underwriter(s) of such offering. If in the opinion of the managing underwriter(s) of such offering the registration of all, or part of, shares of Common Stock (the "Incidental Shares") which the Rightsholders have requested to be included pursuant to this Section 2 and/or which other holders of shares of Common Stock or other securities of the Company entitled to include shares of Common Stock in such registration (other than the Initiating Stockholders) have requested to be included would materially and adversely affect such public offering, then the Company shall be required to include in the underwriting only that number of such shares, if any, which the managing underwriter(s) believe(s) may be sold without causing such adverse effect. If the number of Registrable Shares to be included in the underwriting in accordance with the foregoing is less than the total number of shares which the Rightsholders have requested to be included, then (i) the party or parties initiating the registration (i.e., the Company or the Initiating Stockholders) shall be entitled to include all shares that they have requested to be registered and (ii) the Rightsholders who have requested registration and other holders of shares of Common Stock or other securities of the Company entitled to include shares of Common Stock in such registration on a parity with the Rightsholders (other than the Initiating Stockholders who shall be entitled to include the total number of shares they have requested as provided in clause (i)) shall participate in the underwriting pro rata based upon their total ownership of shares of Common Stock of the Company.

(c) Notwithstanding anything in the foregoing to the contrary, the Company shall not be required to provide any advance notice to Rightsholders in connection with any offering under this Section 2 involving an underwriting if the Company has been informed that in the opinion of the managing underwriter(s) the inclusion of any Incidental Shares in such offering would materially and adversely affect the offering. In such event, the Company will provide written notice to all Rightsholders of such managing underwriter's(s') opinion, which notice need not be given prior to the filing of the applicable Registration Statement.

3. Registration Procedures. If and whenever the Company is required by the provisions of this Agreement to use its best efforts to effect the registration of any of the Registrable

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Shares under the Securities Act, the Company shall:

(a) file with the Commission a Registration Statement with respect to such Registrable Shares and use its best efforts to cause that Registration Statement to become and remain effective for the period specified in paragraph (b) below;

(b) prepare and file with the Commission any amendments and supplements to the Registration Statement and the prospectus included in the Registration Statement as may be necessary to keep the Registration Statement effective for a period ending on the earlier of (i) 120 days after the effective date or (ii) the date on which all Registrable Shares registered under such Registration Statement have been sold;

(c) furnish to each Rightsholder who is selling shares pursuant to such registration (a "Selling Holder") such reasonable numbers of copies of the prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as the Selling Holder may reasonably request in order to facilitate the public sale or other disposition of the Registrable Shares owned by the Selling Holder; and

(d) use its best efforts to register or qualify the Registrable Shares covered by the Registration Statement under the securities or Blue Sky laws of such states as the Selling Holders shall reasonably request, and do any and all other acts and things that may be necessary or desirable to enable the Selling Holders to consummate the public sale or other disposition in such states of the Registrable Shares owned by the Selling Holders; provided, however, that the Company shall not be required in connection with this paragraph (d) to qualify as a foreign corporation or execute a general consent to service of process in any jurisdiction.

If the Company has delivered preliminary or final prospectuses to the Selling Holders and after having done so the prospectus is amended to comply with the requirements of the Securities Act, the Company shall promptly notify the Selling Holders and, if requested, the Selling Holders shall immediately cease making offers of Registrable Shares and return all undistributed prospectuses to the Company. The Company shall promptly provide the Selling Holders with revised prospectuses and, following receipt of the revised prospectuses, the Selling Holders shall be free to resume making offers of the Registrable Shares.

4. Allocation of Expenses. The Company will pay all Registration Expenses of all registrations under this Agreement.

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For purposes of this Section, the term "Registration Expenses" shall mean all expenses incurred by the Company in complying with this Agreement including, without limitation, all registration and filing fees, exchange listing fees, printing expenses, fees and disbursements of counsel for the Company, state Blue Sky fees and expenses and the expense of any special audits incident to or required by any such registration, but excluding underwriting discounts, selling commissions and the fees and expenses of the Selling Holders' own counsel.

5. Indemnification.

(a) In the event of any registration of any of the Registrable Shares under the Securities Act pursuant to this Agreement, the Company will indemnify and hold harmless the seller of such Registrable Shares, each underwriter of such Registrable Shares, and each other person, if any, who controls such seller or underwriter within the meaning of the Securities Act or the Exchange Act against any losses, claims, damages or liabilities, joint or several, to which such seller, underwriter or controlling person may become subject under the Securities Act, the Exchange Act, state securities or Blue Sky

laws or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in any Registration Statement under which such Registrable Shares were registered under the Securities Act, any preliminary prospectus or final prospectus contained in the Registration Statement, or any amendment or supplement to such Registration Statement, or arise out of or are based upon the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and the Company will reimburse such seller, underwriter and each such controlling person for any legal or any other expenses reasonably incurred by such seller, underwriter or controlling person in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon any untrue statement or omission made in such Registration Statement, preliminary prospectus or prospectus, or any such amendment or supplement, in reliance upon and in conformity with information furnished to the Company, in writing, by or on behalf of such seller, underwriter or controlling person specifically for use in the preparation thereof.

(b) In the event of any registration of any of the

Registrable Shares under the Securities Act pursuant to this Agreement, each seller of Registrable Shares, severally and not jointly, will indemnify and hold harmless the Company, each of its directors and officers and each underwriter (if any) and each person, if any, who controls the Company or any such underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages or liabilities, joint or several, to which the Company, such directors and officers, underwriter or controlling person may become subject under the Securities Act, Exchange Act, state securities or Blue Sky laws or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in any Registration Statement under which such Registrable Shares were registered under the Securities Act, any preliminary prospectus or final prospectus contained in the Registration Statement, or any amendment or supplement to the Registration Statement, or arise out of or are based upon any omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, if the statement or omission was made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of such seller, specifically for use in connection with the preparation of such Registration Statement, prospectus, amendment or supplement; provided, however, that the obligations of such Holders hereunder shall be limited to an amount equal to the proceeds to each Holder of Registrable Shares sold as contemplated herein.

(c) Each party entitled to indemnification under this Section 6 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom; provided, that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not be unreasonably withheld); and, provided, further, that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Agreement unless and to the extent that the Indemnifying Party is adversely affected by such failure. The Indemnified Party may participate in such defense at such party's expense; provided, however, that the Indemnifying Party shall pay such expense if representation of such Indemnified Party by the counsel retained by the Indemnifying Party would be inappropriate due to actual or potential differing interests between the Indemnified Party and any other party represented by such counsel in such proceeding. No Indemnifying

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Party, in the defense of any such claim or litigation shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect of such claim or litigation, and no Indemnified Party shall consent to entry of any judgment or settle such claim or litigation without the prior written consent of the Indemnifying Party.

6. Information by Holder. Each Rightsholder of Registrable Shares included in any registration shall furnish to the Company such information regarding such holder and the distribution proposed by such holder as the Company may reasonably request in writing and as shall be required in connection with any registration, qualification or compliance referred to in this Agreement.

7. Rule 144 Requirements. The Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 under the Securities Act;

(b) use its best efforts to file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements); and

(c) furnish to any Rightsholder upon request a written statement by the Company as to its compliance with the reporting requirements of said Rule 144, and of the Securities Act and the Exchange Act, a copy of the most recent annual or quarterly report of the Company, and such other reports and documents of the Company as such holder may reasonably request to avail itself of any similar rule or regulation of the Commission allowing it to sell any such securities without registration.

8. Transfers of Certain Rights; Additional Rightsholders.

(a) In General. The rights granted to each Rightsholder pursuant to the terms of this Agreement may be transferred by such Rightsholder to another Rightsholder, to any affiliate of such Rightsholder, or to any person or entity acquiring at least 32,500 Registrable Shares (such number being subject to adjustment for any stock dividend, stock split, subdivision, combination or other recapitalization of the Common

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Stock of the Company); provided, however, in the case of any transfer referred to in this paragraph (a), that the Company is given written notice by the transferee at the time of such transfer stating the name and address of the transferee and identifying the securities with respect to which such rights are being assigned.

(b) Transferees. Any transferee to whom rights hereunder are transferred shall, as a condition to such transfer, deliver to the Company a written instrument by which such transferee agrees to be bound by the obligations imposed upon Rightsholders under this Agreement to the same extent as if such transferee were a party hereto.

(c) Subsequent Transferees. A transferee to whom rights are transferred pursuant to this Section 8 may not again transfer such rights to any other person or entity, other than as provided in (a) and (b) above.

9. No Assignment. Except as provided in Section 8 hereof, the rights granted pursuant to this Agreement may not be transferred or assigned by any Rightsholder.

10. Amendments. The provisions of this Agreement may be modified or amended at any time and from time to time only by an agreement or consent in writing executed by the Company and the holders of a majority of the Registrable Shares then outstanding; provided, however, that the registration rights granted under this Agreement may be amended only in a manner which affects all Registrable Shares in the same fashion.

11. Notices. All notices, requests, consents and other communications required to be given pursuant to this Agreement shall be in writing and shall be given by personal delivery or by certified or registered mail, postage prepaid, return receipt requested. Notices shall be deemed effective when personally delivered or five days after being so mailed, as the case may be, to the parties at the following respective addresses or at such other address of which either party shall notify the other in accordance with this Section 11:

The Company: Hybridon, Inc.
One Innovation Drive
Worcester, Massachusetts 01605
Attention: Chairman

With a copy to: David E. Redlick, Esq.
Hale and Dorr
60 State Street
Boston, Massachusetts 02109

The Bank: Silicon Valley Bank
_____
_____
Attention: _____

12. Entire Agreement; Governing Law. This Agreement, together with the License Agreement, embodies the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating to the subject matter hereof. This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to conflict of laws provisions.

13. Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14. Headings. The headings of the sections, subsections, and paragraphs of this Agreement have been added for convenience only and shall not be deemed to be a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

HYBRIDON, INC.

By: /s/ Anthony J. Payne

Title:_____

SILICON VALLEY BANK

____

Title:________________________________

EXHIBIT 10.59

MASTER EQUIPMENT LEASE AGREEMENT

Dated as of

October 25, 1996

between

FINOVA TECHNOLOGY FINANCE, INC.
(LESSOR)

AND

HYBRIDON, INC.
(LESSEE)

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MASTER EQUIPMENT LEASE AGREEMENT

MASTER EQUIPMENT LEASE AGREEMENT dated as of October 25, 1996 between HYBRIDON, INC. (hereinafter called "Lessee"), a Delaware corporation that has its executive office and principal place of business at One Innovation Drive, Worcester, Massachusetts 01605 and FINOVA TECHNOLOGY FINANCE, INC. (hereinafter called "Lessor"), a Delaware corporation with its principal place of business at 10 Waterside Drive, Farmington, Connecticut 06032-3065.

In consideration of the mutual covenants hereinafter contained, Lessee and Lessor agree as follows:

1. Agreement for Lease of Equipment. Lessor shall lease to Lessee and Lessee shall lease from Lessor, upon the terms and conditions specified in this Master Lease and the applicable Rental Schedule, the Equipment as described in the applicable Rental Schedule including Schedule A of such Rental Schedule and this Master Lease. Each Rental Schedule shall incorporate the terms of this Master Lease and shall constitute a separate lease (the term "this Lease" shall refer collectively to the applicable Rental Schedule and this Master Lease). Only the signed copy of each Rental Schedule and not this Master Lease shall constitute chattel paper the possession of which can perfect a security interest. In the event of a conflict between the provisions of this Master Lease and the provisions of any Rental Schedule, the provisions of the Rental Schedule shall prevail.

2. Delivery and Acceptance of Equipment. (a) Lessor and Lessee agree that the vendor of the Equipment to Lessor or, as to any Equipment to be sold by Lessee to Lessor and leased back, the vendor of the Equipment to Lessee (in either case, the "Vendor") will be responsible to deliver the Equipment to Lessee at the location specified in the applicable Rental Schedule. Such delivery shall be delivery of the Equipment by Lessor to Lessee under this Lease unless such Equipment is to be sold by Lessee to Lessor and leased back. Provided that no Event of Default has occurred, no event which with the passage of time or giving of notice would be an Event of Default has occurred, and is continuing, and the conditions set forth in the next following paragraph have been met and the Equipment is not to be sold by Lessee to Lessor and leased back, Lessor hereby authorizes Lessee, acting as Lessor's agent, to accept for Lessor, and in Lessor's name, the Equipment from the Vendor upon delivery pursuant to the purchase contract for the Equipment. Such acceptance shall be acceptance of the Equipment by Lessee under this Lease. Nevertheless, if within five business days after Lessee has received delivery of an item of the Equipment, Lessee has not given Lessor written notice of a defect therein and Lessor has not notified Lessee not to accept the Equipment, Lessee shall be deemed to have (a) acknowledged receipt of such item of the Equipment in good condition and repair and (b) accepted such item of the Equipment under this Lease. Lessee agrees to confirm any acceptance of the Equipment by Lessee by executing a Certificate of Inspection and Acceptance and providing the same to Lessor in accordance with the notice provision hereof on or about the Lease Commencement Date, but no later than the date for payment to the Vendor.

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(b) Conditions precedent to every progress payment and Lease Term

Commencement shall include that (i) no payment shall be past due to Lessor or any assign of Lessor from Lessee or any Guarantor (as hereinafter defined), whether as a lessee, a guarantor or in some other capacity; (ii) Lessee shall be in compliance with the provisions of this Lease; (iii) all documentation then required by Lessor's counsel shall have been received by Lessor; (iv) Lessee shall not be in default under any material contract to which Lessee is a party or by which Lessee or the property of Lessee is bound; and (v) there shall not have been any material adverse change or threatened material adverse change in the financial or other condition, business, operations, properties, assets or prospects of Lessee, any Guarantor or any Manufacturer (as hereinafter defined) since June 30, 1996, or from the written information that has been supplied to Lessor prior to October 21, 1996 by Lessee, any Guarantor or any Manufacturer, other than the continued occurrence of losses in the ordinary course of business.

3. Disclaimer of Warranties. LESSEE ACKNOWLEDGES THAT IT HAS SELECTED BOTH THE EQUIPMENT AND EVERY MANUFACTURER AND OTHER VENDOR OF THE EQUIPMENT THAT LESSEE HAS NOT RELIED UPON LESSOR FOR SUCH SELECTION AND THAT LESSEE HAS A COPY OF THE PURCHASE CONTRACT(S) FOR LESSOR'S PURCHASE OF THE EQUIPMENT. LESSOR HAS NOT MADE AND SHALL NOT BE DEEMED TO HAVE MADE ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS FOR USE, FITNESS FOR A PARTICULAR PURPOSE OR TITLE OF THE EQUIPMENT (OR ANY PART THEREOF) OR AS TO COMPLIANCE WITH SPECIFICATIONS, COMPLIANCE WITH GOVERNMENTAL REGULATIONS, QUALITY. SELECTION, INSTALLATION, SUITABILITY, PERFORMANCE, CONDITION, DESIGN, ABSENCE OF DEFECTS, OPERATION, OR NON-INFRINGEMENT OF PATENT, COPYRIGHT, TRADEMARK OR OTHER INTELLECTUAL PROPERTY RIGHTS OF THE EQUIPMENT (OR ANY PART THEREOF). LESSEE SHALL LEASE THE EQUIPMENT "AS IS," WHERE IS". LESSOR HEREBY DISCLAIMS ANY AND ALL SUCH WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED. LESSEE AND LESSOR AGREE THAT ALL RISKS INCIDENT TO THE MATTERS REFERRED TO IN THIS SECTION ARE TO BE BORNE BY LESSEE. Lessor has and shall have no responsibility for the installation, adjustment or servicing of the Equipment. The provisions of this Section have been negotiated and are intended to be a complete exclusion and negation of any representations or warranties by Lessor, express or implied, with respect to the Equipment that may arise pursuant to any law now or hereafter in effect, or otherwise. In no event shall defect in, or unfitness of, any or all of the Equipment, or any breach of warranty or representation by any or every Manufacturer or other Vendor relieve Lessee of the obligation to pay rent or to make any other payments required hereunder or to perform any other obligation hereunder. Without limiting the generality of the foregoing, Lessor shall not be responsible or liable for any (i) defect, either latent or patent, in any of the Equipment or for any direct or consequential damages therefrom, (ii) loss of use of any of the Equipment or for any loss of profits or any interruption in Lessee's business occasioned by Lessee's inability to use any or all of the Equipment for any reason whatsoever, or (iii) in the event that any Vendor delays or fails to make delivery of any or all of the Equipment or fails to fulfill or comply with any purchase contract

or order. For as long as no Event of Default shall have occurred hereunder, Lessor hereby transfers and assigns to Lessee during the Lease Term (as hereinafter defined) all right and interest of Lessor in any Manufacturer's and other Vendor's warranties with respect to any and all of the Equipment, and agrees to execute all documents reasonably necessary to effect such transfer and assignment, except that to the extent any rights of Lessor with respect to the Equipment may not be assigned or otherwise be available to Lessee, Lessor shall instead use reasonable efforts to enforce such rights against such Manufacturers or other Vendors but only upon the request and at the expense of Lessee.

4. Primary Term. The Primary Term for each item of the Equipment shall commence on the Lease Commencement Date provided for by the Rental Schedule for such Equipment, and unless sooner terminated pursuant to the provisions of this Lease, shall be for the number of calendar months set forth in such Rental

Schedule, plus the number of days remaining in any partial calendar month if the Lease Commencement Date occurs on other than the first day of a month. Notwithstanding the foregoing, the provisions of this Master Lease on indemnification of Lessor by Lessee shall apply between Lessor and Lessee with respect to any Equipment from the time that any order for the Equipment is placed by Lessor.

5. Rent. (a) Lessee shall pay to Lessor in cash or by check as rent for the Equipment during the Lease Term, the amounts provided for in the Rental Schedule ("Basic Rent") for such Equipment on the dates designated therein ("Payment Dates"), at the location of Lessor set forth therein, or at such other address or to such other person or entity as Lessor, from time to time, may designate.

(b) Lessee shall also pay to Lessor, upon notice by Lessor to Lessee that payment is due, any sums other than for Basic Rent that Lessee at any time shall be required to pay Lessor pursuant to the provisions of this Lease, within (5) five business days of notice thereof including but not limited to sums payable by reason of payments by Lessor to any Vendors in advance of the delivery of such Equipment or the commencement of the Lease Term for such Equipment, together with every additional charge, interest and cost which may be added for non-payment or late payment of any such sums or of Basic Rent. All such sums shall be additional rent ("Additional Rent") and Lessor shall provide Lessee with notification as to the amount of any Additional Rent. If Lessee shall fail to pay any Additional Rent within (5) five business days after notice thereof, Lessor shall have all rights, powers and remedies with respect thereto as are provided herein or by law in the case of non-payment of Basic Rent.

(c) With respect to any amount of Basic Rent or Additional Rent not received by Lessor within three days from when due hereunder, Lessee shall pay to Lessor interest on such amount from the due date thereof until payment is received by Lessor at two percent per month or the highest rate of interest on amounts past due that is not unlawful, whichever is lower (the "Default Interest Rate"). Additionally, with respect to each such instance of late payment, Lessee shall pay to Lessor, within three days of notification that

such payment is due, a collection fee of $500, which fee approximates Lessor's administrative costs, at minimum, to collect such unpaid Basic Rent or Additional Rent. However, no Default Interest or collection fee shall be payable for (x) any Basic Rent for a partial month commencing on a Lease Commencement Date or (y) any Basic Rent for a full calendar month in an amount that differs from the amount of Basic Rent payable for the immediately prior calendar month, provided that in either circumstance the Basic Rent is paid within ten (10) days of an invoice to Lessee from Lessor giving notice of the amount of Basic Rent to be paid.

(d) LESSEE AGREES THAT TIME IS OF THE ESSENCE TO LESSOR IN LESSEE'S MAKING PAYMENTS OF BASIC RENT AND ADDITIONAL RENT WHEN SUCH PAYMENTS BECOME DUE.

(e) This Lease is a net-net-net lease and, notwithstanding any other provisions of this Lease, it is intended that Basic Rent and Additional Rent shall be paid without notice, demand, counterclaim, setoff, deduction or defense and without abatement, suspension, deferment, diminution or reduction. Lessee shall perform all its obligations under this Lease at its sole cost and expense. Except to the extent otherwise expressly specified herein, the obligations and liabilities of Lessee hereunder shall in no way be released, discharged or otherwise affected for any reason, including, without limitation: (i) any defect in the condition, quality or fitness for use of the Equipment or any part thereof; (ii) any damage to, removal, abandonment, salvage, loss, scrapping or destruction of or any requisition or taking of the Equipment or any part thereof; (iii) any restriction, prevention or curtailment of or interference

with any use of the Equipment or any part thereof; (iv) any defect in title or rights to the Equipment or any lien on such title or rights or on the Equipment; (v) any change, waiver, extension, indulgence or other action or omission in respect of any obligation or liability of Lessor; (vi) any bankruptcy, insolvency, reorganization, composition, adjustment, dissolution, liquidation or other like proceedings relating to Lessee or any action taken with respect to this Lease by any trustee or receiver of Lessee or by any court, in any such proceeding; (vii) any claim that Lessee has or might have against any Person (as hereinafter defined), including without limitation Lessor; (viii) any failure on the part of Lessor to perform or comply with any of the terms hereof or of any other agreement; (ix) any invalidity, unenforceability or disaffirmance of this Lease or any provision hereof against or by Lessee; or (x) any other occurrence whatsoever, whether similar or dissimilar to the foregoing, whether or not Lessee or Lessor shall have notice or knowledge of any of the foregoing. To the extent permitted by law, Lessee waives all rights now or hereafter conferred by statute or otherwise to quit, terminate, cancel, rescind or surrender this Lease, or to any diminution or reduction of Basic Rent or Additional Rent payable by Lessee hereunder.

6. Lessee's Representations and Warranties. Lessee represents and warrants (and if reasonably requested by Lessor, promptly will provide supporting documents to the effect and an opinion of counsel substantially in the form requested by Lessor) that as of the date that Lessee signs this Master Lease, as of any date that Lessor makes a payment to a Vendor

prior to the date all Equipment has been accepted for lease hereunder, as of each date that any Equipment is accepted for lease hereunder and as of each Lease Commencement Date pursuant to a Rental Schedule hereunder: (i) all items of the Equipment are new and unused as of the Lease Commencement Date, unless otherwise specified in the applicable Rental Schedule in which event the specified items of the Equipment shall have been delivered new to Lessee by their suppliers not more than 90 days prior to their Lease Term Commencement; (ii) Lessee is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, and is qualified and in good standing to do business wherever necessary to carry on its present business and operations, including the jurisdictions where the Equipment is or will be located; (iii) Lessee has the power to enter into this Lease and the other instruments and documents executed by Lessee in connection herewith (together with this Lease, the "Transactional Documents") and to pay and perform its obligations under this Lease and the other Transactional Documents; (iv) this Lease and the other Transactional Documents have been duly authorized, executed and delivered by Lessee, and constitute the valid, legal and binding obligations of Lessee enforceable in accordance with their terms; (v) no vote or consent of, or notice to, the holders of any class of stock of Lessee is required, or if required, such vote or consent has been obtained or given, to authorize the execution, delivery and performance of this Lease and the other Transactional Documents by Lessee; (vi) neither the execution and delivery by Lessee of this Lease or the other Transactional Documents, nor the consummation by Lessee of the transactions contemplated hereby or thereby, nor compliance by Lessee with the provisions hereof or thereof, conflicts with or results in a breach of any of the provisions of any Certificate of Incorporation or By-laws or partnership or trust agreement or certificate of Lessee, or of any applicable law, judgment, order, writ, injunction, decree, award, rule or regulation of any court, administrative agency or other governmental authority, or of any indenture, mortgage, deed of trust, other agreement or instrument of any nature to which Lessee is a party or by which it or its property is bound or affected or pursuant to which it is constituted, or constitutes a default under any thereof or will result in the creation of any lien, charge, security interest or other encumbrance upon any of the Equipment, other than the interests therein of Lessor or any Assignee (as hereinafter defined), or upon any other right or property of Lessee or will in any manner adversely affect Lessor's or any

Assignee's right, title and interest in any of the Equipment; (vii) no consent, approval, withholding of objection or other authorization of or by any court, administrative agency, other governmental authority or any other Person is required, except such consents, approvals or other authorizations which have been duly obtained and are in full force and effect and copies of which have been furnished Lessor, in connection with the execution, delivery or performance by Lessee, or the consummation by Lessee, of the transactions contemplated by this Lease and the other Transactional Documents; (viii) there are no actions, suits or proceedings pending, or, to the knowledge of Lessee, threatened, in any court or before any administrative agency or other governmental authority against or affecting Lessee, which, if adversely decided would or could, individually or in the aggregate, materially and adversely affect the financial or other condition, business, operations, properties, assets or prospects of Lessee or the ability of Lessee to perform any of its obligations under this Lease or under the other Transactional Documents, except for

any such actions, suits or proceedings that Lessee has described in writing to Lessor; (ix) no Event of Default or event or condition which upon the passage of time, the giving of notice, or both, would constitute an Event of Default, exists or is continuing; (x) there has been no material adverse change or threatened change in Lessee's, any Guarantor's or any Manufacturer's financial or other condition, business, operations, properties, assets or prospects since the date of Lessee's, such Guarantor's or Manufacturer's most recent financial statements prior to the date of this Master Lease, or from the written information that has been supplied to Lessor by Lessee, any Guarantor or such Manufacturer, (xi) Lessee possesses any and all authorizations, certifications and licenses which are or may be required to use and operate the Equipment; (xii) the actual Acquisition Cost to the Company's knowledge pursuant to the applicable Rental Schedule of each item of the Equipment does not exceed the fair and usual price for like quantity purchases of such item and reflects all discounts, rebates and allowances for the Equipment given to Lessee, any Guarantor or any affiliate of Lessee or any Guarantor by any Vendor or other Person including, without limitation, discounts for advertising, prompt payment, testing or other services; (xiii) all information supplied to Lessor by Lessee or any Guarantor is correct and does not omit any statement necessary to make the information supplied not misleading; and (xiv) the financial statements of Lessee and any Guarantor have been prepared in accordance with generally accepted accounting principles consistently applied and accurately and completely present in all material respects the financial condition and the results of operations of Lessee and such Guarantors at the dates of and for the periods covered by such statements except that the quarterly interim financial statements of Lessee do not contain full footnote disclosure.

7. Identification Marks. To the extent requested by Lessor or if required by applicable law, Lessee shall affix to the Equipment at Lessee's expense signs, labels, or other forms of notice to disclose Lessor's ownership of, and the interest of any Assignee in, the Equipment. Lessee shall keep and maintain such signs, labels or other forms of notice affixed to the Equipment throughout the Lease Term. Lessor may furnish such signs, labels or other forms of notice to Lessee. Except as otherwise directed by Lessor, Lessee shall not allow the name of any person other than Lessor to be placed on any part of the Equipment as a designation that might reasonably be interpreted as a claim of ownership.

8. Fees and Taxes. Lessee agrees to pay promptly when due, and to indemnify and hold Lessor harmless from, all license, title, registration and recording fees whatsoever, all taxes including, without limitation, sales, use, franchise, personal property, excise, import, export and stamp taxes and customs duties, and all charges together with any penalties, fines or interest thereon which are assessed, levied or imposed by any governmental or taxing authority against Lessor with respect to any or all of the Equipment or the purchase,

acquisition, ownership, construction, installation, shipment, delivery, lease, possession, use, maintenance, condition, operation, control, return or other disposition thereof or the rents, receipts or earnings arising therefrom which accrue or are payable with respect to the Equipment or this Lease or which are assessed, are based on a valuation date, or are due during or with respect to the Lease Term or any subsequent period until the

Equipment has been returned to Lessor pursuant to the provisions of this Lease or until the Equipment has been purchased by Lessee pursuant to any purchase option provisions of this Lease, excluding, however, any taxes to the extent measured by Lessor's net income from the general operation of Lessor's business. In the event any fees, taxes or charges payable by Lessee pursuant to the next preceding sentence are paid by Lessor, or if Lessor is required to collect or pay any thereof, Lessee shall reimburse Lessor therefor (plus any penalties, fines or interest thereon) promptly upon demand. Unless and until Lessor notifies Lessee in writing to the contrary, Lessee shall file and pay any personal property taxes levied or assessed on the Equipment directly to the levying authority. Upon Lessor's written request, Lessee shall submit to Lessor satisfactory evidence of payment by Lessee of any or all amounts for which Lessee is required to make payment or to indemnify Lessor hereunder that are paid by Lessee, and of the filing of any and all reports, returns and other documentation required in connection with any such payment. In the event Lessor elects to pay the personal property taxes directly to a levying authority, Lessor shall submit to Lessee a copy of its personal property tax return and its receipt for the full amount of such personal property taxes so paid by Lessor. All of the obligations of Lessee under this Section shall continue in full force and effect notwithstanding any expiration, termination, rescission or cancellation of this Lease. Lessee acknowledges that Lessor may not be exempt from the payment of any of the amounts referred to herein, even though Lessee might have been exempt therefrom if it were the owner or purchaser of the Equipment, and Lessee agrees that this Section shall apply, and the amounts due from it hereunder shall be due, whether or not Lessee might itself have otherwise been exempt from any such payments. Subject to the foregoing, Lessee shall have the right to contest in good faith any such taxes levied or imposed by any governmental or taxing authority, provided that Lessee shall have given Lessor not less than ten days' prior notice of its intention to contest and full particulars of the proposed contest, in the opinion of Lessor the proposed contest will not adversely affect the interests of Lessor or any Assignee, and Lessee either shall have paid the taxes or provided for a bond or other security so that none of the Equipment will be subject to seizure, confiscation or forfeiture. For purposes of this Section, the term "Lessor" shall include each member of Lessor's affiliated group, if any.

9. General Indemnity. (a) Lessee shall indemnify Lessor and any Assignee (as hereinafter defined), and their respective agents and servants, against, and agrees to defend, protect, save and keep them harmless from, any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements, including attorneys' fees and expenses and costs for customs, completion, performance and appeal bonds, of whatsoever kind and nature (including, without limitation, for negligence, tort liability, damages by reason of strict or absolute liability, punitive damages, and indirect and consequential damages, but excluding any such amounts imposed or incurred as a result of Lessor's gross negligence or wilful misconduct), imposed on or incurred by or assessed against Lessor and/or any Assignee, in any way relating to or arising out of (i) the failure of Lessee to provide or obtain any certificates, documents, consents, authorizations, clearances, licenses, permits or instruments required hereunder or under any of the other Transactional Documents, or (ii) the ordering, construction, installation, delivery, testing,

ownership, lease, possession, use, maintenance, operation, control, movement, import, export, shipment, condition, or return of the Equipment (including but not limited to latent and other defects, whether or not discoverable by Lessor or Lessee, and any claim for patent, trademark, copyright, software or other intellectual property infringement) until such time as the Equipment shall have been returned to Lessor pursuant to the provisions of this Lease or until the Equipment shall have been purchased by Lessee pursuant to any purchase option provisions of this Lease.

(b) The obligations of Lessee under this Section shall survive the payment of all known obligations under and any expiration, termination, rescission or cancellation of this Lease, and are expressly made for the benefit of and shall be enforceable by Lessor, its successors and any Assignee.

10. Use of Equipment; Location; Liens. (a) During the Lease Term, Lessee warrants and agrees that the Equipment shall be used and operated and otherwise be in compliance in all material respects with any established operating procedures therefor of any Manufacturer and all statutes, regulations and orders of any governmental body having power to regulate the Equipment or its use. Lessee shall bear and pay all costs of such compliance. Lessee shall not permit the Equipment to be used or maintained in any manner or condition that would violate, or could result in the termination of, the insurance policies carried by Lessee pursuant to the provisions of this Lease on insurance, or in any manner or condition or for any purpose for which, in the opinion of any Manufacturer, the Equipment is not designed or suited.

(b) Lessee agrees that without Lessor's prior written consent, it will not remove any of the Equipment from the location specified in the Rental Schedule for such Equipment or permit any of the Equipment to be used by anyone other than Lessee, Lessee's employees or a responsible independent contractor engaged by Lessee.

(c) During the Lease Term and until the Equipment has been returned to Lessor pursuant to the provisions of this Lease or until the Equipment is purchased by Lessee pursuant to any purchase option provisions of this Lease, Lessee will not directly or indirectly create, incur, assume or suffer to exist any mortgage, security interest, lien or encumbrance on the Equipment or Lessor's or any Assignee's title thereto or interest therein, except in the name of Lessor and its successor(s) and any Assignee. Lessee, at its own expense, will promptly take such action as may be necessary to keep the Equipment free and clear of, and to duly discharge, any such mortgage, security interest, lien or encumbrance not excepted above.

(d) Lessee agrees to procure and maintain in effect all licenses, certificates, permits and other approvals and consents required by federal, state and local laws and regulations in connection with Lessee's possession, use, operation and maintenance of the Equipment. During the Lease Term, Lessee agrees that 100 percent of the use of the Equipment shall be

"qualified business use" as that term is and shall be from time to time defined by the Internal Revenue Code of 1986, as amended.

(e) Lessee shall cooperate fully with Lessor or any Assignee to perfect and record their respective interests in connection with the Transactional Documents including, without limitation, the filing of financing statements and will pay such Persons their reasonable costs related thereto. Lessee authorizes Lessor to file financing statements that are signed only by Lessor or that are

signed for Lessee by Lessor in any jurisdiction when permitted by law or local authority. Lessee hereby grants to Lessor power-of-attorney to act as Lessee's attorney-in-fact to sign Lessee's name on financing statements as "Debtor."

11. Maintenance and Repairs; Additions to Equipment. (a) Lessee shall, for the entire Lease Term, at its sole expense, maintain all of the Equipment in good, safe and efficient operating repair, appearance and condition, will keep all components of the Equipment properly calibrated and aligned, will make all required adjustments, replacements and repairs and will obtain and install any upgrades for the Equipment that are announced and available for sale by a Manufacturer (collectively, "maintenance and repairs"). Such maintenance and repairs shall include, but not be limited to, all recommended or advised by a Manufacturer, all required or advised by cognizant governmental agencies or regulatory bodies and all commonly performed by prudent business and/or professional practice. All maintenance and repairs to any item of the Equipment shall be made by the Manufacturer or, upon prior written approval by Lessor, those of substantially equal skill or knowledge in maintaining and repairing the Equipment.

(b) Lessee shall not modify the Equipment without the prior written consent of Lessor. Any replacements, substitutions, additions, attachments, accessions, parts, fittings, accessories, modifications, enhancements, maintenance and repairs and other upgrades to the Equipment whenever made shall be considered accessions to the Equipment and shall automatically become the property of Lessor.

(c) All instruction manuals, published statements of capabilities and technical specifications, service, maintenance and repair records, installation, qualification, certification and calibration reports, usage logs, and printed material relating to the Equipment shall be deemed part of the Equipment. Computer programs, programming codes, operating systems, data processing instructions, series of instructions or statements which are machine readable, and any like symbols or signals usable by an electronic data processing system (collectively "Software") that has been or shall be installed or entered in the Equipment shall become a part of the Equipment except for any Software that is proprietary Software of Lessee and is not a modification, change, enhancement or improvement to any Software which is identified or listed in the description of specific items of the Equipment in or attached to a Rental Schedule. Whenever Lessee acquires Software licenses from other parties, with respect to the Software such licenses shall automatically and without further action by Lessee be assigned to Lessor and become through assignment a part of the Equipment transferable to any future user of the Equipment for use with the Equipment.

12. Loss, Damage or Destruction of Equipment. (a) Lessee shall bear all risks of damage to, taking of, or theft, loss or destruction of, any or all of the Equipment commencing as of the date of this Master Lease and continuing throughout the Lease Term and until such Equipment has been returned to Lessor or purchased by Lessee pursuant to any purchase option provisions of this Lease. Except as otherwise herein expressly provided, no damage to, taking of or theft, loss or destruction of any Equipment shall impair any obligation of Lessee to Lessor under this Lease, including, without limitation, the obligation to pay Basic Rent.

(b) In the event that any item of Equipment shall become damaged from any cause whatsoever, Lessee agrees to promptly notify Lessor in writing of such fact, fully informing Lessor of the details thereof. If any item of Equipment is damaged (unless the same, in the opinion of Lessor is irreparably damaged, in which case the provisions of this Lease with respect to a Casualty Occurrence shall apply), Lessee shall, at its sole cost and expense, place the same in good repair, condition and working order or replace the same with "like property" having the same value and operating capabilities and useful life at least equal

to the damaged Equipment prior to the date of such damage, which property shall thereupon become subject to this Lease with title thereto in Lessor. In the event that an item of Equipment has been damaged, but not irreparably, if no Event of Default has occurred and is continuing hereunder, upon receipt by Lessor of evidence, satisfactory to Lessor, that such repair, restoration or replacement has been undertaken, and an invoice therefor, Lessor shall release to Lessee or its supplier the proceeds of any insurance received by Lessor as a result of such damage for the purpose of reimbursing Lessee for the costs of repairing, restoring or replacing such item to the extent such repair, restoration or replacement has been made.

(c) In the event that any item of Equipment shall become lost, stolen, destroyed or irreparably damaged from any cause whatsoever, or if any item of Equipment or Lessor's title thereto shall be requisitioned or seized by any governmental authority (each such occurrence being herein called a "Casualty Occurrence") during the Lease Term and until it has been returned to Lessor pursuant to the provisions of this Lease or until the Equipment is purchased by Lessee pursuant to any purchase option provisions of this Lease, Lessee shall promptly notify Lessor in writing of such fact, fully informing Lessor of all details of the Casualty Occurrence in question, and shall pay Lessor in cash the "Stipulated Loss Value" as set forth in the Table of Stipulated Loss Values attached to the Rental Schedule pursuant to which such item of Equipment is leased hereunder, calculated as of the date of the Casualty Occurrence. This payment shall be made within 30 days following the Casualty Occurrence, together with the Basic Rent accrued and unpaid with respect to such Equipment as of the date of the Casualty Occurrence, plus all Additional Rent or amounts owing with respect to such Equipment on such date of payment.

(d) Upon the payment of the Stipulated Loss Value of the Equipment in question in accordance with the terms of this Section, and the payment of all Basic Rent, Additional Rent and any other sums then due hereunder, this Lease shall terminate with respect to the

Equipment or part thereof suffering the Casualty Occurrence and all Lessor's rights and title to such Equipment shall pass to Lessee, "as is" and "where is," without any representation or warranty by, or recourse to, Lessor, as provided by the provisions of this Master Lease on disclaimer of warranties and as evidenced by a duly executed bill of sale naming Lessor as the seller and Lessee as the buyer.

(e) Provided that no Event of Default has occurred and no event that with the passage of time or giving of notice, or both, would be an Event of Default has occurred and is continuing, any insurance proceeds received as the result of a Casualty Occurrence with respect to any or all items of the Equipment shall be applied first in reduction of any other then unpaid obligation of Lessee to Lessor hereunder and second in reduction of Lessee's obligation to pay the Stipulated Loss Value for such item if not already paid by Lessee to Lessor, or, if already paid by Lessee, to the reimbursement of Lessee therefor, and the balance of the insurance proceeds, if any, shall be paid to Lessee.

13. Reports; Inspections. Lessee will cause to be furnished to Lessor, if requested, from time to time but more often than once annually unless an Event of Default has occurred and is continuing a statement showing the condition and such other information regarding the Equipment as Lessor may reasonably request. Lessor and any Assignee shall have the right, upon reasonable notice to Lessee, to inspect the Equipment including Lessee's records with respect to the Equipment, to copy such records, and to inspect and copy Lessee's records with respect to the financial statements Lessee is required to furnish Lessor or has warranted to Lessor pursuant to this Lease. Any inspection by Lessor or any Assignee shall not be deemed to be approval or acknowledgment

by Lessor or such Assignee of the safety, freedom from defects, performance or compliance with specifications or governmental requirements of the Equipment or of the conformity of the Equipment or such financial statements to the requirements or warranties of this Lease, and the disclaimers set forth in the provisions of this Master Lease on disclaimer of warranties shall apply to any such inspection. Lessee shall pay or reimburse Lessor for Lessor's costs and travel expenses for one such inspection per year, and for Lessor's costs, travel expenses and salaries and the charges and such expenses of Lessor's advisers for the inspection following an inspection which encountered a breach of the requirements of this Lease or the warranties of Lessee pursuant to this Lease.

14. Insurance. During the Lease Term and until all Equipment has been returned to Lessor pursuant to the provisions of this Lease or until the Equipment is purchased by Lessee pursuant to any purchase option provisions of this Lease, Lessee shall procure and maintain at its expense with reputable insurers reasonably acceptable to Lessor (i) insurance on all of the Equipment in an amount not less than the Equipment's Stipulated Loss Value insuring against all risks of loss or damage to the Equipment and against such other risks as Lessee would, in the prudent management of its properties, maintain with respect to similar equipment owned by it, and (ii) comprehensive public liability and property damage insurance, in such amounts as shall be satisfactory to Lessor but for not less than the greater of $1,000,000 or the amounts customarily maintained by parties similar to Lessee for similar

leased equipment with similar contemplated use, insuring Lessor and any Assignees, as their interests may appear, against liability for death, bodily injury, professional malpractice, and property damage arising out of or resulting from the design, construction, manufacture, ownership, use, operation, lease or maintenance of, or otherwise in connection with, the Equipment. On the policies referred to in clause (i), such insurance shall name Lessor (and any Assignees) as the sole loss payee so that (and Lessor and Lessee hereby agree that) the insurance proceeds payable under such policies will be payable and paid solely to Lessor (and to any Assignees). On the policies referred to in clause (ii), such insurance will name Lessor (and any Assignees) as an additional insured as its interests may appear. All such policies shall provide that they may not be invalidated against Lessor (or any Assignees) because of any violation of a condition or a breach of warranty of the policies or application therefor by Lessee, that they may not be altered or canceled except after 30 days' prior written notice to Lessor, and that Lessor and any Assignee have the right but not the obligation to pay the premiums with respect to coverage required by this Lease in order to continue such insurance in effect or to obtain like coverage. Under the policies of insurance required to be maintained by Lessee pursuant to this Master Lease, Lessee agrees to waive any right of subrogation and to cause the insurance carrier to waive any right of subrogation in each instance as such right may exist against Lessor or any Assignee and for any and all loss or damage to the Equipment. Lessor is hereby appointed Lessee's attorney-in-fact to endorse any check or draft which may be payable to Lessee in order to collect the proceeds of such insurance. Lessee shall deliver to Lessor, prior to the beginning of the Lease Term with respect to any of the Equipment and at such other time or times as Lessor may request, a certificate or other evidence satisfactory to Lessor of the maintenance of such insurance. Lessor shall be under no duty to examine such policies, certificates or other evidence of insurance or to advise Lessee in the event that its insurance is not in compliance with this Lease. In the event of failure on the part of Lessee to provide such insurance, Lessor may, at its option, but without obligation, provide such insurance and add the amount of the premiums to the rents due hereunder, and Lessee shall, upon Lessor's demand, pay the same as Additional Rent.

15. Return of Equipment. (a) At the end of the Lease Term for any Equipment that is not then purchased by Lessee pursuant to the Purchase Option

provisions of this Lease, Lessee at its sole expense shall forthwith return possession of such Equipment without omissions to Lessor by:

(i) properly preparing, crating and/or assembling such Equipment (in accordance with the Manufacturer's instructions if such instructions exist) for shipment by common carrier with all containers and pieces labeled with model, part and unit numbers and descriptions; and

(ii) shipping such Equipment by common carrier, with insurance and freight prepaid, to a place in the United States designated by Lessor within a 1,000 mile radius of the specified location under this Lease for such Equipment Lessor shall pay additional shipping charges incurred because of distances in excess of such 1,000 miles.

The insurance required by clause (ii) above shall provide that in the event of loss such insurance shall pay Lessor in cash directly the greater of (A) the full replacement value of such Equipment and (B) the "Stipulated Loss Value" as set forth in the Exhibit to the Rental Schedule calculated as of the Payment Date next preceding the date of loss. Lessee acknowledges that "full replacement value" may exceed Fair Market Value.

(b) When the Equipment is returned to Lessor it shall be complete. The condition of the Equipment including Software upon receipt by Lessor shall be not less than (i) meeting all specifications for such equipment as published by the respective Equipment vendor(s), Manufacturer(s) or supplier(s) (collectively referred to, together with their successors and assigns, if any, as "Vendors"), (ii) in fully operational condition, (iii) with no modifications that would render the Equipment incapable of being installed and operated in the normal course by another user, (iv) legally qualified for future use or operation of the Equipment by another lessee or purchaser of the Equipment, (v) free of damage or malfunction of any kind, dents, fractures, chips, scratches, stains, defacements, discolorations, rust, corrosion, electrical shorts, fluid restrictions or blockages, disconnections, breakage or the like other than ordinary wear customary for such equipment, (vi) safe for routine and usual operation, (vii) in compliance with any and all pertinent governmental or regulatory rules, laws or guidelines for its operation or use, (viii) free of Lessee's markings or labelings, and (ix) free of any advertising or insignia not requested by Lessor that was placed on the Equipment by Lessee.

(c) Lessor reserves the right to inspect the Equipment within 30 days of its return to verify compliance with the provisions of this Master Lease on Equipment maintenance and repairs and additions and on return of Equipment. Should there be less than full compliance, Lessor at its option may (i) perform or cause to be performed through service organizations of its own choosing such maintenance and repairs, including upgrades, replacements, the obtaining of paid-up Software licenses and other services, as it deems necessary to effect such compliance, (ii) require Lessee to perform or cause to be performed such maintenance and repairs, including upgrades, replacements, the obtaining of paid-up Software licenses and other services, as Lessor deems necessary to effect such compliance and/or (iii) reasonably estimate the costs to effect such compliance. Lessee shall pay to Lessor the costs for performance of (i) or (ii) above, or the estimated costs under (iii) above. If maintenance and repairs, including upgrades, replacements, and the obtaining of paid-up Software licenses and other services, are necessary to place any of the Equipment under any Rental Schedule in the condition required by this Lease, Lessee shall continue to pay to Lessor monthly Additional Rent at the last prevailing rate during the Lease Term for Basic Rent on the Equipment under such Rental Schedule for the period of delay until all such required maintenance and repairs can be performed, or for the period of time reasonably necessary to accomplish such maintenance and repairs. For any such period that applies, Lessee shall continue to provide the insurance required during the Lease Term. However, Lessor's acceptance of such

rent and provision of insurance during such period shall not constitute a renewal of the Lease Term, a waiver of Lessor's right to prompt return of such

Equipment in the condition required by this Section, or a waiver of Lessor's right to possession of such Equipment.

(d) Should the inspection reveal any item(s) of the Equipment to be missing, Lessee shall be responsible for paying to Lessor promptly the greater of the Stipulated Loss Value or the Fair Market Value of such item(s) of the Equipment computed as of the last Payment Date prior to the end of the Lease Term, plus the amount of any impairment of the Fair Market Value of the remaining item(s) of the Equipment due to the absence of such missing item(s) of the Equipment.

(e) In the event that Lessee fails to return any of the Equipment when required, at the election of Lessor effected by notice to Lessee, the Lease Term for such Equipment shall be extended on a month-to-month basis on the same terms as previously in effect, and Lessee shall pay to Lessor monthly in advance Basic Rent for such Equipment at the last prevailing rate during the unextended Lease Term, until such Equipment has been returned to Lessor pursuant to the provisions of this Lease. Notwithstanding any month-to-month continuance of this Lease, Lessor may resort to any remedies available to it under this Lease, at law or in equity, to recover such Equipment at any time following the end of such extended Lease Term.

(f) Not less than 180 days prior to expiration of the Renewal Term, if Lessee has not given notice of the exercise of any purchase option, Lessee shall give Lessor notice that Lessee shall be returning the Equipment forthwith upon the expiration of the Renewal Term unless otherwise notified by Lessor and either (i) that the Equipment is in the condition required by this Lease upon the return of the Equipment or (ii) specifying the respects in which the condition of the Equipment is not in compliance with such requirements and the measures that Lessee shall take to bring the Equipment into compliance.

16. Lessor's Ownership; Equipment To Be and Remain Personal Property. (a) Lessee acknowledges and agrees that it does not have, and by execution of this Lease and/or payments and performance hereunder it shall not have or obtain, any title to the Equipment, nor any property right or interest, legal or equitable, therein, except its rights as Lessee hereunder and subject to the terms hereof. Lessee shall not have or claim a security interest and shall not seek or obtain replevin, detinue, specific performance, sequestration, claim and delivery, or like remedies in or for this Lease, any rents under this Lease, any or all of the Equipment, any items of personal property identified to become items of the Equipment, or any proceeds of any or all of the foregoing.

(b) All of the Equipment shall be and remain personal property notwithstanding the manner in which the Equipment may be attached or affixed to realty. Upon the expiration, cancellation or termination of the Lease Term of any or all of the Equipment, Lessee shall have the obligation, and Lessor shall have the right, to remove, or cause the removal of, such Equipment from the premises where the same is then located, for return to Lessor pursuant to the provisions of this Master Lease on return of Equipment and, if

applicable, on Events of Default, whether or not any of the Equipment is affixed

or attached to realty or to any building. In the exercise of its rights, Lessor shall not be liable for any damage to the realty or any such building or other real or personal property occasioned by any removal of the Equipment by Lessee or Lessor or the agents of Lessee or Lessor. Lessee further covenants and agrees that Lessee will, at the request of Lessor, obtain and deliver to Lessor concurrently with the execution and delivery of each Rental Schedule, a waiver, in recordable form, from the owner and any landlord, tenant or holder of any lien or encumbrance on the realty or building(s) on or in which any of the Equipment described in such Rental Schedule shall be located, under which such owner, landlord, tenant and holder (i) agree and consent that such Equipment is and shall be personal property, owned by and removable by Lessor upon the expiration, cancellation or termination of the Lease Term thereof, and (ii) waive any rights of distraint or similar rights with respect to such Equipment.

(c) If Lessee is unable to return, or is prevented from returning, any of the Equipment to Lessor upon the expiration, cancellation or termination of the Lease Term as required under the provisions of this Master Lease on return of Equipment, for any reason whatsoever, including, but not limited to, the assertion by any third party of any claim against such Equipment, or of any right with respect thereto, whether or not resulting from the manner in which such Equipment is affixed or attached to, or installed in, the realty or any building(s) thereon or any other personal or real property, or from the failure of any owner, landlord or tenant of said realty (or the building(s) thereon) or the holder of any lien or encumbrance to execute the waiver in writing of such fact, for all purposes of this Lease such Equipment shall be deemed to have been the subject of a Casualty Occurrence. Thereupon, Lessee shall pay to Lessor the amounts provided for by the provisions of this Master Lease on loss, damage or destruction of Equipment, with respect to such Equipment, at the time, in the manner, and with the consequences provided by such provisions.

(d) Notwithstanding the foregoing provisions of this Section, without Lessor's prior written consent, Lessee shall not permit any of the Equipment to be attacked or affixed to, imbedded in or incorporated into any building structure, real estate or other personal or real property.

17. Other Covenants. (a) Lessee agrees to furnish, upon Lessor's request, such financial, business and operational information concerning Lessee and any or all Guarantors, including copies of its and their tax returns, as Lessor or its assigns may reasonably request during the Lease Term. Additionally, Lessee shall furnish to Lessor and its assigns without notice or demand therefor two complete copies of its and of every Guarantor's (i) quarterly interim financial statements within 45 days of the close of each of the first three fiscal quarters of every year, certified by the chief financial officer of, respectively, Lessee or such Guarantor and (ii) annual financial statements within 90 days of the close of each fiscal year reported on (audited) by independent accountants without material adverse qualification or comment. All such financial statements shall be prepared in accordance with generally accepted accounting principles consistently applied except that the quarterly interim financial statements need not contain full footnote disclosure, and shall accurately and

completely in all material respects present Lessee's and every Guarantor's financial condition and results of operations at the dates of and for the periods covered by such statements.

(b) Lessee shall promptly furnish to Lessor copies of (i) filings that Lessee or any guarantor makes with the SEC or other government agencies under the securities laws including but not limited to definitive proxy statements, registration statements, prospectuses and tender offer filings, and reports on holdings or acquisitions of securities, relating to proxy solicitations, and on Form 10-K, 10-Q, 8-K or similar forms, and any amendments to such filings, (ii)

press releases of Lessee or any guarantor, and (iii) new product (or service) announcements of Lessee or any Guarantor.

(c) If Lessee or any Guarantor or a general partner of Lessee or any Guarantor is a corporation, Lessee shall give Lessor notice of all meetings of the stockholders of such corporation and copies of all materials that are furnished to the stockholders for the meetings at the same time that the notice or materials are sent to the stockholders. If Lessee or any Guarantor or a general partner of Lessee or any Guarantor is a partnership, Lessee shall give Lessor notice of all meetings of such partnership and copies of all materials that are furnished to the partners for the meetings at the same time that the notice or materials are sent to the partners. Lessor shall have the right to have its representative attend any and all such meetings at the expense, including travel costs, of Lessee.

(d) There shall be no actual or threatened conflict with, or violation of, any statute, regulation, standard or rule relating to Lessee, its present or future operations, or the Equipment.

(e) All information supplied to Lessor or its assigns by Lessee or any Guarantor shall be correct and shall not omit any statement necessary to make the information supplied not be misleading. There shall be no material breach of the representations and warranties made by Lessee in connection with this Lease or by any Guarantor in connection with a Guaranty (as hereinafter defined).

(f) Lessee shall give Lessor notice of any change in the address of the executive office or principal place of business of Lessee not less than 15 days prior to the change.

(g) No change shall occur in the control, and no material change shall occur in the ownership, of Lessee or any Guarantor, and no Guarantor shall assert in writing that the obligations of the Guarantor as a Guarantor or in its Guaranty are not in full force and effect.

(h) Lessee shall not make any payment or distribution of money, checks, securities or property to any Person in contravention of the provisions of any Guaranty or subordination that such Person has made in favor of Lessor or its assigns of which Lessee shall have notice or knowledge.

18. Events of Default. If one or more of the following events (hereinafter called "Events of Default" or an "Event of Default") shall occur:

(i) default shall be made in the payment of any Basic Rent or Additional Rent due under this Master Lease or under any Rental Schedule hereto, and any such default shall continue for more than 10 days after the due date thereof;

(ii) any representation or warranty by Lessee or any Guarantor made in this Master Lease or in any Guaranty or other Transactional Document or certificate furnished to Lessor in connection with this Lease or pursuant hereto shall at any time prove to be incorrect in any material respect;

(iii) Lessee shall make or permit any unauthorized assignment or transfer of this Master Lease or any Rental Schedule to this Master Lease or of any of Lessee's rights and obligations hereunder or thereunder, or Lessee shall make or permit any unauthorized sublease or transfer of any Equipment or the possession of any Equipment;

(iv) Lessee shall default in the observance and/or performance of any other covenant, condition or agreement on the part of Lessee to be observed and/or performed under this Master Lease, under any Rental Schedule hereto, or

under any other Transactional Document, which default is not governed by paragraphs (i), (ii) or (iii) above, and such default shall continue for 30 days after written notice from Lessor to Lessee specifying the default and demanding the same to be remedied;

(v) Lessee or any Guarantor shall make an assignment for the benefit of creditors, or cease being in substantially the same line or lines of business in which it is presently engaged, or generally fail to pay its debts as they become due, or become insolvent or commence a voluntary case under the federal Bankruptcy Code as now or hereafter constituted or any other applicable federal or state bankruptcy, insolvency or similar law, or admit in writing its inability to pay its debts as they mature, or consent to the appointment of a trustee or receiver, or a trustee or a receiver shall be appointed for Lessee or any Guarantor or for a substantial part of Lessee's or any Guarantor's property without such party's consent and such appointment shall be not dismissed for a period of 90 days; there shall have been entered a decree or order for relief by a court having jurisdiction in respect of Lessee or any Guarantor, or approving as properly filed a petition seeking a reorganization, arrangement, adjustment or composition of or in respect of Lessee or any Guarantor in an involuntary proceeding or case under any applicable federal or state bankruptcy, insolvency or other similar law, or appointing a receiver, liquidator, assignee, custodian, trustee or similar official of Lessee or any Guarantor or of any substantial part of its property, or ordering the winding-up or liquidation of its affairs, and the continuance of any such decree or order unstayed and in effect for a period of 90 days, or there shall have been filed a petition by or against Lessee or any Guarantor under any bankruptcy law or other insolvency law and, if petition is filed against Lessee or such Guarantor, the petition is not withdrawn or dismissed within 90 days after the date of filing; or Lessee or

any Guarantor shall cease doing business as a going concern or shall liquidate or be dissolved;

(vi) Lessee or any Guarantor shall, without the prior written consent of Lessor, enter into a merger, consolidation or division, effect a share exchange of its outstanding stock for the stock of another corporation, make a tender offer for equity securities of a publicly held entity, or sell or otherwise dispose of all or a major part of its assets or of assets that produce all or a major part of its revenues or profits; provided, however, that Lessee or any Guarantor, without violating the provisions of this clause, may consolidate with or merge with a corporation or other entity organized under the laws of one of the states of the United States (the surviving entity, a "successor"), or sell (except by means of a sale and leaseback arrangement) all or substantially all of its business and assets to such a successor, on the condition that any successor expressly assume in writing all of the obligations of Lessee pursuant to this Lease or of such Guarantor pursuant to its Guaranty, and that the net tangible assets and the net worth (determined in accordance with generally accepted accounting principles) of the successor after the consolidation, merger or sale shall be at least equal to the net tangible assets and the net worth of Lessee or such Guarantor, as the case may be, immediately prior to the consolidation, merger or sale;

(vii) there shall occur under any other lease, contract or agreement between Lessee and Lessor, an Event of Default, as defined in such lease, contract or agreement;

(viii) any of the Equipment shall be attached, levied upon, encumbered, pledged, seized or taken under any judicial process (except for any attachment, levy, encumbrance or pledge caused to be placed on the Equipment by Lessor) and such proceedings shall not be vacated, or fully stayed, within 30 days of Lessee's becoming aware thereof;

(ix) at any time there shall occur under (A) any lease between Lessee and a party other than Lessor as lessor or (B) under any lease wholly or partially guaranteed by Lessee, the exercise by the Lessor of its possessory remedies or commencement of legal proceedings by the Lessor for default under the Lease; provided that the aggregate future payments remaining to be made or guaranteed by Lessee exceed $250,000, and that under a lease described in (B) above within ten days of notice to Lessee of such exercise of remedies and demand for payment by Lessee any such amount guaranteed by Lessee remains unpaid; or

(x) any obligation of Lessee or any Guarantor in excess of $250,000 for the payment of borrowed money or the acquisition of assets by purchase, conditional sale or other arrangement is not paid or refinanced at maturity, whether by acceleration or otherwise, or is declared due and payable prior to the stated maturity thereof by reason of default or other violation of the terms of any promissory note or agreement evidencing or governing such obligation, and Lessor has given Lessee an opportunity to either cure the purported Event of Default or supply information satisfactory to Lessor that it does not, in fact, exist;

this Lease shall be declared in default, immediately and without notice upon the occurrence of an Event of Default specified in clause (v) above, and in the case of any other Event of Default, upon Lessor at any time at its option subsequent to such Event of Default giving notice to Lessee that this Lease is declared in default. At any time after this Lease has been declared in default, Lessor may exercise one or more of the following remedies, to the extent not then prohibited by law, as Lessor in its sole discretion may elect:

(I) to proceed by appropriate court action or actions at law or in equity or in bankruptcy to enforce performance by Lessee of the covenants and terms of this Lease and/or to recover damages for the breach thereof;

(II) to terminate or cancel this Lease upon written notice to Lessee whereupon all rights of Lessee to use the Equipment shall immediately terminate, but Lessee shall not be relieved of any obligations under this Lease;

(III) whether or not this Lease be so terminated or canceled, and without notice to Lessee, to repossess and/or to render inoperable the Equipment wherever found, with or without legal process, and for this purpose Lessor and/or its agents may enter upon any premises of or under the control or jurisdiction of Lessee or any agent of Lessee without liability for suit, action or other proceeding by Lessee and remove the Equipment therefrom; Lessee hereby expressly waives any claims for damages occasioned by such repossession; LESSEE HEREBY EXPRESSLY WAIVES ANY AND ALL RIGHTS, INCLUDING RIGHTS TO NOTICE OR A JUDICIAL HEARING, WITH RESPECT TO REPOSSESSION OF THE EQUIPMENT AFTER AN EVENT OF DEFAULT;

(IV) to hold or to use any Equipment returned to Lessor or repossessed by Lessor for any purpose whatsoever, to sell any Equipment at a private or public, cash or credit sale, to re-lease any Equipment, in all the foregoing events free and clear of any rights of Lessee and without any duty to account to Lessee with respect to such action or inaction;

(V) whether or not Lessor shall have exercised, or shall hereafter at any time exercise, any of its other rights with respect to an item of the Equipment, upon written notice to Lessee, to demand that Lessee pay to Lessor, and Lessee shall pay to Lessor on the date specified in such notice, as liquidated damages for loss of a bargain and not as a penalty (in lieu of the Basic Rent for such Equipment that prior to the Event of Default was to have been paid on Payment Dates subsequent to the date specified in such notice), the

SUM equal to the excess, if any, of 125% of the Stipulated Loss Value for such item of Equipment computed as of the latest PAYMENT DATE when all Basic Rent and Additional Rent then due and payable has been fully paid over whichever of the following three amounts Lessor, in its sole discretion, shall designate in such notice:

(A) the present value of the fair market rental value (determined as hereafter provided in this Section) of such item of the Equipment for the remainder of the Lease Term as of the date specified in such notice, the present value to be

computed on the basis of a seven percent per annum rate of discount from the respective dates upon which such rent would be paid,

(B) the fair market sales value (determined as hereafter provided in this Section) of such item of Equipment as of the date specified in such notice, or

(C) if Lessor shall have sold or re-leased any item of Equipment pursuant to clause (IV) above, the net proceeds of such sale or re-lease,

plus interest at the Default Interest Rate (a) on such SUM from the such PAYMENT DATE until paid and (b) on whichever of such three amounts is so designated by Lessor from such PAYMENT DATE until whichever one of the following shall be applicable to the designated amount: the time when the fair market rental or sales value shall have been so determined or the time when the Equipment shall have been sold or re-leased; and

(VI) to forthwith recover from Lessee, and Lessee shall be fully liable for, all Basic Rent that shall accrue until the date that the Equipment is returned to or repossessed by Lessor and any Additional Rent including collection fees, whenever accrued, and interest at the Default Interest Rate.

In addition to the foregoing, Lessor may also recover from Lessee all costs and expenses arising out of Lessee's default, including, without limitation, expenses of repossession of the Equipment and the storage, inspection, repair, reconditioning, sale and re-leasing thereof, and reasonable attorneys' fees incurred by Lessor in exercising any of its rights or remedies hereunder. For the purposes of this Section only, "fair market rental value" and "fair market sales value" shall be determined by an appraisal of an independent appraiser chosen by Lessor, and the cost of any such appraisal shall be borne by Lessee. No remedy referred to in this Section is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to above or otherwise available to Lessor at law or in equity or in bankruptcy. Lessor shall have no duty to pay Lessee any surplus from sale or lease of the Equipment, or in the fair market rental or sales value of the Equipment, above all amounts payable by Lessee to Lessor. The exercise by Lessor of any one or more remedies shall not be deemed to preclude the simultaneous or later exercise by Lessor of any or all such previously exercised remedies and any and all other remedies.

19. Assignment and Transfer by Lessor. (a) Lessor may at any time and from time to time assign to one or more security assignees (all herein called the "Secured Party" and also called an "Assignee") for the purpose of securing a loan to Lessor or for any other purpose, and at its sole discretion, may also sell or transfer to one or more Persons (herein called the "Transferee" and also called an "Assignee"), in any case subject to the rights of Lessee under this Lease but without notice to or consent of Lessee, this Lease, any other Transactional Documents, any or all of the Equipment, and all sums at any

time due and to become due or at any time owing or payable by Lessee to Lessor under this Lease or

pursuant to any or all of the Transaction Documents. The Secured Party shall not be obligated to perform any duty, covenant or condition required to be performed by Lessor under this Lease or any other Transactional Documents.

(b) Lessee agrees that notwithstanding any assignment to a Secured Party, each and every covenant, agreement, representation and warranty of Lessor under this Lease shall be and remain the sole liability of Lessor and of every successor in interest of Lessor (excluding any Secured Party) or, in the case of assignment to a Transferee, shall become and remain the sole liability of the Transferee if so agreed to by the Transferee and if not so agreed to shall be and remain the sole liability of Lessor. Lessee further agrees and acknowledges that any assignment, sale or transfer by Lessor could not and shall not materially change any duty or obligation of Lessee or materially increase any burden or risk of Lessee.

(c) Lessee further acknowledges and agrees that from and after the receipt by Lessee of written notice of an assignment from Lessor, Lessee shall comply with the directions or demands given in writing by the Secured Party or (to the extent not inconsistent with the directions or demands of the Secured Party) by the Transferee, and the Secured Party or Transferee shall have the right to exercise (either in its own name or in the name of Lessor) all rights, privileges, and remedies of Lessor provided for herein. Lessee agrees that any obligation to a Secured Party as a result of the assignment of this Lease to a Secured Party as aforesaid shall not be reduced or minimized by reason of any claim, defense, counterclaim, set-off, abatement, reduction or recoupment or other right that Lessee might otherwise have been able to assert against Lessor, any prior Assignee or any Transferee. After any assignment to a Secured Party and unless and until Lessee is otherwise notified by the Secured Party, this Lease may not be amended or modified, and no consent or waiver hereunder shall be effective, without the prior written consent of the Secured Party. Lessee agrees to execute and Lessor or any Transferee or Secured Party may record any instruments and documents relating to such assignment, mortgage or security interest desired by Lessor or any Transferee or Secured Party. Lessee shall promptly provide any such instruments and documents that are requested by Lessor or any Assignee including certificates indicating any claim, defense, counterclaim, setoff, abatement, reduction, recoupment or other right that Lessee may have against Lessor or any Assignee, the date to which Basic Rent has been paid under each Rental Schedule hereunder and that this Lease is in effect without default or amendment, or the extent of such default or amendment, as the case may be.

20. Recording and Filing; Expenses. Lessee will, upon demand of Lessor, at Lessee's cost and expense, do and perform any other act and will execute, acknowledge, deliver, file, register, record and deposit (and will re-file, re-register, re-record or re-deposit whenever required) any and all instruments required by law or requested by Lessor (or any Assignee) including, without limitation, financing statements under the Uniform Commercial Code (which, notwithstanding the intent of Lessor and Lessee that this is a true lease, Lessor shall have the right to file wherever and whenever Lessor requires), for the purpose of providing

proper protection to the satisfaction of Lessor (and/or any Assignee) of Lessor's title to any Equipment (and/or of any Assignee's security interest in the Equipment) or for the purpose of carrying out the intention of this Lease. Lessee will also pay, or will upon demand reimburse Lessor for, all reasonable costs and expenses incurred by Lessor in connection with this Lease, any other Transactional Documents, and any related transactions, closings, assignments, sales and transfers to any Secured Party or Transferee, enforcement of Lessor's rights under this Lease and the other Transactional Documents, proceedings involving Lessee or any Guarantor as a debtor under any chapter of the Bankruptcy Code, filings, the documentation of this and any related transactions, and fees and costs of attorneys for Lessor in connection therewith.

21. Automatic Lease Term Renewal. In the event that at the expiration of the Primary Term Lessee does not exercise the purchase option set forth in this Master Lease with respect to the Equipment subject to a Rental Schedule, the Lease Term shall automatically be renewed for all of the Equipment subject to such Rental Schedule for an additional term of twelve months (the "Automatic Renewal Term") at a monthly Basic Rent equal to 1.7% of the Acquisition Cost of such Equipment, plus any applicable sales and other taxes, that shall be paid monthly in advance.

22. Option to Renew. (a) Upon the expiration of an Automatic Renewal Term for the Equipment under any Rental Schedule, and provided that the financial condition of Lessee then meets the criteria of Lessor and that no Event of Default or event which with the giving of notice or lapse of time, or both, would constitute an Event of Default, has occurred and then remains uncured, Lessee shall have the option, exercisable on at least 180 days' prior written notice to Lessor, to renew this Lease with respect to all, but not less than all the Equipment then subject to Rental Schedules, for one additional renewal term of one year (the "Second Renewal Term") at the rate of Basic Rent that would be obtained in an arm's length transaction at the end of the Automatic Renewal Term between an informed and willing prospective lessee and an informed and willing lessor, each under no compulsion to lease (said rate being herein called the "Fair Rental Rate").

(b) If, on or before a date 100 days prior to the expiration of the Automatic Renewal Term, Lessor and Lessee are unable to agree upon a determination of the Fair Rental Rate of the Equipment, Lessee shall have no obligation to renew this Lease for a Second Renewal Term and shall either give the notice required by the provisions of this Master Lease of intention to return such Equipment and on the condition of such Equipment or a written notice that Lessee wishes to proceed with its option. If Lessee gives such notice that it will proceed with its option, such Equipment shall be leased during the Second Renewal Term at the Fair Rental Rate determined in accordance with the procedure for Appraisal (as hereinafter defined).

23. Quiet Enjoyment. So long as no Event of Default has occurred and is continuing hereunder, Lessee shall have peaceful and quiet use and enjoyment of the

Equipment during the Lease Term as against acts of Lessor or anyone claiming solely by, through or under Lessor including any Secured Party or Transferee.

24. Failure or Indulgence not Waiver; Additional Rights of Lessor. (a) No failure to exercise, and no delay in exercising, any right, power or remedy hereunder on the part of Lessor shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. Any waiver, to be effective, must be in writing. A waiver of any covenant, term or condition contained herein shall not be construed as a waiver of any

subsequent breach of the same covenant, term or condition. Receipt by Lessor of any Basic Rent or Additional Rent with knowledge of the breach of any provision hereof shall not constitute a waiver of such breach.

(b) Lessor shall be entitled to injunctive relief in case of the violation or attempted or threatened violation of any of the provisions hereof, to a decree compelling performance of any of the provisions hereof, and to any other remedy allowed in law or in equity.

25. Sublease. Lessee shall not sublease the Equipment, relinquish possession of the Equipment, or assign, pledge or hypothecate this Lease or any of Lessee's rights or obligations hereunder, in whole or in part, without the prior written consent of Lessor. Nevertheless, any such sublease and the rents, profits and proceeds therefrom shall be the property of Lessor and, unless Lessor has consented to such sublease, Lessor within 30 days after receiving notice thereof in accordance with the provisions of this Master Lease on notices shall have the right to declare the sublease void from its purported commencement, to terminate the sublease or to accept the sublease. Any such attempted relinquishment of possession, assignment, pledge or hypothecation by Lessee without such consent shall be null and void.

26. Purchase Option. (a) If (i) no Event of Default, and no event which with the giving of notice or lapse of time, or both, would constitute an Event of Default, has occurred and then remains unremedied to Lessor's satisfaction, and (ii) this Lease shall not have been earlier terminated, Lessee shall be entitled, at its option, upon written notice to Lessor, as hereinafter provided, to purchase all, but not less than all, items of the Equipment then subject to a Rental Schedule, at the expiration of the Primary Term for such items of the Equipment or, as the case may be, at the expiration of the Primary Term for such items of the Equipment, for an amount (the "Purchase Amount"), with respect to each such item of the Equipment, payable in immediately available funds, equal to the Fair Market Value thereof determined as provided by the definition of Fair Market Value at the expiration of the Primary Term and the definition of Fair Market Value at any expiration of the Lease Term other than the expiration of the Primary Term. In addition, the Purchase Amount shall include any applicable sales, excise or other taxes imposed as a result of such sale (other than net income taxes attributable to such sale). Lessor's sale of any item of the Equipment shall be on an "as-is," "where-is" basis, without any representation or warranty by or recourse to Lessor, as provided by the provisions of this Master Lease on disclaimer of

warranties, and shall be subject to such additional terms and conditions as may be specified in the Rental Schedule. If Lessee intends to exercise said purchase option, Lessee shall give written notice to Lessor to such effect at least 180 days prior to the earliest expiration of the Primary Term of the item(s) of the Equipment subject to the particular Rental Schedule with respect to which Lessee intends to exercise its purchase option, or, if a Renewal Term is then in effect, at least 180 days prior to the earliest expiration of the then current Renewal Term of the item(s) of the Equipment subject to the particular Rental Schedule with respect to which Lessee intends to exercise its purchase option. If Lessee fails to give such written notice to Lessor as aforesaid, it shall be conclusively presumed that Lessee has elected not to exercise such purchase option. If Lessee gives such written notice, Lessee shall be obligated to buy, and Lessor shall be obligated to sell, such Equipment on the terms herein provided.

(b) If Lessee has elected to exercise its purchase option, as provided in this Section, as soon as practicable following Lessor's receipt of the written notice from Lessee of Lessee's intent to exercise such option, Lessor and Lessee shall consult for the purpose of determining the Fair Market Value of each such item of the Equipment as of the end of the Primary Term thereof, or,

if this Lease has been renewed pursuant to any provisions of this Lease on option to renew, as of the end of the then current Renewal Term thereof, and any values agreed upon in writing shall constitute the Fair Market Value of each such item of the Equipment for the purposes of this Section. In so consulting, Lessor and Lessee may refer to books containing indexes of standard values for used equipment of relevant type and age and to the records of Lessee and similar users which tabulate the history of revenues and various other economic benefits derived from the use of the Equipment. If Lessor and Lessee have failed to agree upon such value prior to the 150th day before the expiration of the Primary Term, or, if this Lease has been renewed, prior to the 150th day before the expiration of the then current Renewal Term, on and after such 150th day either party may request that such value be determined by Appraisal.

(c) Notwithstanding any election by Lessee to purchase, the provisions of this Lease shall continue in full force and effect until the transfer of ownership of such Equipment upon the date of purchase by the delivery of a Bill of Sale by Lessor.

27. Notices. Any notice or other communication required or permitted to be given by either party hereto to the other party shall be deemed to have been given upon its receipt, in writing, by the receiving party at its address set forth below, or at such other address as the receiving party shall have furnished to the other party by notice pursuant to this Section.

If to Lessee: Hybridon, Inc.
One Innovation Drive
Worcester, MA 01605
copy to: David E. Redlick
Hale & Dorr LLP
60 State Street
Boston MA 02109

If to Lessor: FINOVA Technology Finance, Inc.
10 Waterside Drive
Farmington, CT 06032-3065

28. Entire Agreement; Severability; Amendment or Cancellation of Lease. This Lease constitutes the complete and exclusive statement of the terms of the agreement between the parties with respect to the leasing of the Equipment and any sale of the Equipment by Lessor to Lessee. Any provision of this Lease which is prohibited or unenforceable in any jurisdiction shall be, as to such jurisdiction, ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. LESSEE ACKNOWLEDGES RECEIPT OF A COPY OF THIS MASTER LEASE. Lessor and Lessee agree that neither this Lease nor Lessee's acceptance or deemed acceptance of any or all of the Equipment may be canceled, waived, altered, amended, repudiated, terminated, rescinded, revoked or modified, except by a writing signed by Lessee and a duly authorized representative of Lessor.

/s/ Anthony J. Payne

Signature of Lessee

29. Waiver of Jury. Lessor and Lessee waive any right and all right to trial by jury in any action or proceeding relating in any way to this Lease.

30. Restriction of Limitation Periods and Damages. Any action for breach of warranty or in respect of or relating to the Equipment or this Lease that may be brought by Lessee against Lessor or any Assignee must be commenced

within one year after the cause of action accrues. Lessee shall not make any claim in respect of or relating to the Equipment or this Lease against Lessor or any Assignee for special consequential or punitive damages.

31. Governing Law; Consent to Jurisdiction and Service. This Lease shall be governed by and construed in accordance with the laws of the State of Connecticut (other than the conflicts of laws provisions). Lessee agrees that any legal action or proceeding against Lessee in respect of or relating to this Lease or the Equipment may be brought in any state or federal court sitting in the city of Hartford in the State of Connecticut. Lessee hereby irrevocably consents and submits to the nonexclusive personal jurisdiction of said courts and irrevocably agrees that all claims in any

such action or proceeding may be heard and determined in and enforced by any such court. Lessee irrevocably consents to the service of summons, notice, or other process relating to any such action or proceeding by delivery thereof to it by hand or by mail in the manner set forth in the provisions of this Master Lease on notices.

32. Lessor's Right to Perform for Lessee. If Lessee fails to duly and promptly perform any of its obligations under this Lease or fails to comply with any of the covenants or agreements contained herein, Lessor may itself perform such obligations or comply with such covenants or agreements, for the account of Lessee, without thereby waiving any default and any amount paid or expense (including, without limitation, attorney's fees) reasonably incurred by Lessor in connection with such performance or compliance shall, together with interest thereon at the Default Interest Rate, be payable by Lessee to Lessor on demand.

33. Agreement for Lease Only. Lessor and Lessee agree that this Lease is and is intended to be a true lease (and not a lease in the nature of a security interest) and further agree to treat this Lease as a true lease for all purposes, including, without limitation, tax purposes.

34. Binding Effect. This Lease shall inure to the benefit of and be binding upon the parties hereto and their respective permitted successors and assigns.

35. General. The captions in this Master Lease and each Rental Schedule are for convenience of reference only. There shall be only one original executed copy of this Master Lease and of each Rental Schedule. This Master Lease is and each Rental Schedule shall be executed in the State of Connecticut by Lessor's having countersigned the same in the State of Connecticut, and are to be and shall be performed in the State of Connecticut by reason of the requirements therein for payment by Lessee to Lessor to be made in the State of Connecticut.

36. Definitions. The following term, not elsewhere defined, shall have the following meanings for all purposes hereof:

"Acquisition Cost" of any item of the Equipment shall mean an amount equal to the sum of (i) the purchase price of such item of the Equipment paid by Lessor pursuant to the purchase order for such item of the Equipment assigned to or given by Lessor, plus (ii) any excise, sales or use tax, freight, installation, set-up and other costs that are paid by Lessor on or with respect to such item of the Equipment on or about the time of Lessor's purchase of the Equipment or the Lease Commencement Date and that Lessor does not request Lessee to directly reimburse to Lessor.

"Appraisal" shall mean the following procedure whereby recognized independent qualified equipment appraisers shall mutually agree upon the amount in question. The party seeking Appraisal shall deliver a written notice to that effect to the other party

appointing its appraiser, and within 15 days after receipt of such notice, the other party shall, by written notice, appoint its appraiser. If within 15 days after appointment of the two appraisers as described above, the two appraisers are unable to agree upon the amount in question, a third appraiser shall be chosen within five days thereafter by mutual agreement of the first two appraisers, or if the first two appraisers fail to agree upon the appointment of a third appraiser, such appointment shall be made by an authorized representative of the American Arbitration Association. The appraisal of the third appraiser shall be given within a period of ten days after the selection of the third appraiser. The average of the three appraisals arrived at by the three appraisers shall be binding and conclusive on Lessor and Lessee. Lessor and Lessee each shall pay the fees of the appraiser appointed by it and shall share equally the fees and expenses of the third appraiser, if any, and those of the American Arbitration Association, if applicable.

"Certificate of Inspection and Acceptance" shall mean a certificate in the form designated by Lessor whereby Lessee evidences its acceptance of one or more items of the Equipment for lease hereunder.

"Fair Market Value" shall mean, with respect to the Equipment in question, the amount which would be paid for that Equipment in an arm's-length sale transaction between an informed and willing buyer (not a used equipment or scrap dealer) who wants the Equipment to be as described in the next following sentence and is under no compulsion to buy, and an informed and willing seller under no compulsion to sell. In determining the Fair Market Value, it shall be assumed (whether or not the same be true) that the Equipment is fully operational, installed and in economically productive service and that all maintenance and repairs including upgrades, replacements and other services required by this Lease have been performed and that the Equipment is in such condition to comply fully with the requirements of this Lease, including provisions of this Master Lease governing the return of Equipment. The costs of removal from the location of current use and installation at another location for use shall not be a deduction in determining the Fair Market Value. Upon any exercise by Lessee of the purchase option provided for by this Master Lease at the expiration of the Primary Term for the Equipment subject to a Rental Schedule, Lessor and Lessee agree that the Fair Market Value shall be eighteen percent (18%) of the Acquisition Cost of such Equipment. Upon any exercise by Lessee of the purchase option provided for by this Master Lease at the expiration of the Automatic Renewal Term for the Equipment subject to a Rental Schedule, Lessor and Lessee agree that the Fair Market Value shall be sixteen percent (16%) of the Acquisition Cost of such Equipment.

"Guarantor" shall mean a guarantor of any or all of the obligations of Lessee pursuant to this Lease.

"Guaranty" shall mean a writing containing a guaranty of any or all of the obligations of Lessee pursuant to this Lease.

"Lease Commencement Date" with respect to an item of Equipment shall mean the date of commencement of the Lease Term of the item as provided by the applicable Rental Schedule.

"Lease Term" with respect to an item of the Equipment shall mean the Primary Term plus any and all Renewal Terms plus any period during which Lessee retains the Equipment on a month-to-month basis pursuant to provisions of this Master Lease governing the return of the Equipment. The Lease Term shall include the Lease Commencement Date and the date on which the Lease Term ends.

"Manufacturer" shall mean the Person that manufactures the item of the Equipment in question.

"Master Lease" shall mean this Master Equipment Lease Agreement.

"Person" shall mean an individual, a corporation, a partnership, an association, a joint-stock company, a limited liability company, a trust, an estate, any incorporated organization or similar association, a government or political subdivision, or any other entity.

"Primary Term" shall mean the 48 calendar months plus any partial month commencing for the Equipment under a Rental Schedule on its Lease Commencement Date.

"Renewal Term" shall mean the periods of 12 months for the Equipment under a Rental Schedule commencing, for the Automatic Renewal Term, upon the expiration of the Primary Term therefor and, for the Second Renewal Term, upon the expiration of the Automatic Renewal Term therefor, but in either case only if the Lessee shall not have exercised the purchase option provided in section 25 of this Master Lease.

"Rental Schedule" shall mean each schedule, executed by Lessor and Lessee pursuant to this Master Lease, providing for a description of some or all of the Equipment to be leased hereunder, the place or places where such Equipment shall be located, its Acquisition Cost, the Basic Rent payable by Lessee with respect thereto, the Primary Term thereof, the Lease Commencement Date with respect thereto, and such other matters as Lessor and Lessee may agree upon.

"Stipulated Loss Value" shall mean the amounts specified in the Table of Stipulated Loss Values applicable to the items of the Equipment subject to a Rental Schedule, as provided by the Schedule B attached to the Rental Schedule. Except as otherwise provided in a writing signed by Lessor and Lessee, the Stipulated Loss Value immediately prior to the end of the Primary Term for any items of the Equipment shall be the Stipulated Loss Value throughout any Renewal Term(s) for such items, and thereafter until such items are returned to Lessor pursuant to the provisions of this Lease or purchased by Lessee pursuant to any then applicable purchase option provisions of this Lease.

IN WITNESS WHEREOF, the duly authorized representatives of Lessor and Lessee have executed this Master Lease as of the date first above written.

LESSOR:	LESSEE:
FINOVA TECHNOLOGY FINANCE, INC.	HYBRIDON, INC.
By: _____	By: /s/ Anthony J. Payne _____
Title: _____	Title: CFO _____
ATTEST:	ATTEST:

By: ________________________________	By: /s/ Cheryl Cacciatore
Title: ______________________________	Title: ______________________________

EXHIBIT 10.60

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SUPPLY AND SALES AGREEMENT

THIS SUPPLY AND SALES AGREEMENT made effective as of the 1st day of September, 1996 (the "Effective Date") between HYBRIDON, INC., a corporation incorporated under the laws of the State of Delaware ("HYBRIDON") and P.E. APPLIED BIOSYSTEMS, a Division of Perkin-Elmer, a corporation incorporated under the laws of the State of New York ("ABD" and together with HYBRIDON called the "Parties").

WHEREAS, the Parties are interested in setting forth herein the terms and conditions relative to the supply by ABD to HYBRIDON of nucleoside phosphoramidites and the sale by HYBRIDON to third parties of oligonucleotides made from such nucleoside phosphoramidites;

NOW, THEREFORE, upon the mutual covenants and agreements herein contained and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE 1.

DEFINITIONS

The following terms shall have the meanings set forth below:

1.1 "ABD Materials" shall mean amounts of nucleoside phosphoramidites to be supplied by ABD to HYBRIDON and used by Hybridon for manufacturing oligonucleotides hereunder. ABD Materials provided by ABD shall conform to the ABD Specifications and shall be manufactured under current ISO 9001 conditions.

1.2 "ABD Patent Rights" shall mean the U.S. Patents listed in Appendix A, and any and all reissues, reexaminations, renewals, extensions, divisions and continuation patents, and continuations-in-part of the foregoing and any foreign counterparts and any other form of patent coverage directed to the inventions described in such patents or patent applications or covered by any such patents or patent applications.

1.3 "ABD Specifications" shall mean the specifications set out in Exhibit A hereto, and shall include the standard assays which will be used to evaluate conformity of ABD Materials to such specifications.

1.4 "Oligonucleotides" shall mean oligonucleotides, including chemically modified analogs of oligonucleotides. "Hybridon Oligonucleotides" shall mean Oligonucleotides manufactured in whole or in part using ABD Materials, and supplied by HYBRIDON to third parties who have been referred to Hybridon by ABD. Hybridon Oligonucleotides provided by HYBRIDON shall conform

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to the Hybridon Specifications and shall be manufactured under current Good Manufacturing Practice conditions as found in the pharmaceutical industry.

1.5 "Net Sales" shall mean the ********** on sales or other dispositions of a Hybridon Oligonucleotide by HYBRIDON to independent third parties, less the following items (provided that such items are included in the amount invoiced and collected and do not exceed reasonable and customary amounts in the country in which such sale or other disposition occurred): (i) trade, cash and quantity and promotional discounts actually allowed and taken; (ii) excises, sales taxes or other taxes imposed upon and paid with respect to such sales (excluding national, state or local taxes based on HYBRIDON's income); (iii) freight, insurance and other transportation charges incurred in shipping a Hybridon Oligonucleotide to third parties; (iv) amounts repaid or credited by reason of rejections, defects, recalls or returns; (v) rebates (including pursuant to Medicaid or other governmental programs); and (vi) ********** ********** **********. Such amounts shall be determined from the books and records of HYBRIDON, maintained in accordance with GAAP.

If a Hybridon Oligonucleotide is sold, leased, used or otherwise commercially disposed of for value (including, without limitation, disposition in connection with the delivery of other products or services) in a transaction that is not an arm's length sale to an independent third party, then the gross amount invoiced in such transaction shall be deemed to be the gross amount that would have been paid had there been such a sale at the average sale price of such Hybridon Oligonucleotide during the applicable royalty reporting period. Net Sales shall also include any consideration received by HYBRIDON in respect of the sale, use or other disposition of a Hybridon Oligonucleotide in a country prior to the receipt of all regulatory approvals required to commence full commercial sales of such Hybridon Oligonucleotide in such country (e.g., sales under "treatment INDs," "named patient sales," "compassionate use sales," or their equivalents).

1.6 "Term of this Agreement" shall mean the period commencing September 1, 1996 and ending four (4) years thereafter, unless earlier terminated according to Article 10 of this Agreement.

1.7 "Valid Claim" shall mean an unexpired patent claim which has not been found unpatentable, invalid or unenforceable by a court or administrative body of competent jurisdiction in an unappealed or unappealable decision.

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ARTICLE 2.

SUPPLY OF ABD MATERIALS

2.1 ABD agrees to supply to HYBRIDON sufficient ABD Materials to satisfy **** ********** for nucleoside phosphoramidites for HYBRIDON's overall manufacture of oligonucleotides for third parties pursuant to Section 5.1 of this Agreement at competitive prices to be agreed by the Parties. ABD further agrees to supply to HYBRIDON sufficient ABD Materials to satisfy **********

********** of Oligonucleotides for its own account pursuant to Section 5.4 of this Agreement at competitive prices to be agreed by the Parties. ABD further agrees that:

(i) ABD Materials must conform to the ABD Specifications; and

(ii) ABD must supply ABD Materials in accordance with the delivery schedules agreed between ABD and HYBRIDON for HYBRIDON's orders for such ABD Materials.

2.2 HYBRIDON agrees to use ABD ********** its overall requirement for nucleoside phosphoramidites for the manufacture of oligonucleotides.

2.3 Any modifications to the ABD Specifications required due to a change in statutory, regulatory or similar legislative requirements shall be promptly agreed between ABD and HYBRIDON in writing in a manner which complies with such statutory, regulatory or similar legislative requirements. In the event that either ABD or HYBRIDON require a modification to the Specifications for reasons other than changes in statutory, regulatory, or similar legislative requirements, such modification shall not be implemented until such time as both ABD and HYBRIDON have agreed in writing to the modification itself, as well as to the method of implementing such modification.

2.4 ABD shall provide to the FDA or other government regulatory agency on behalf of HYBRIDON any information requested by the FDA or other government regulatory agency relating to the ABD Materials which is required by any appropriate governmental regulatory agency for regulatory approval of a product containing such ABD Materials. Preparation and provision of such information will be billed to HYBRIDON to defray the document preparation expense.

2.5 Notwithstanding any other provision in this Article 2 to the contrary, during the term of this agreement, Hybridon shall be entitled to manufacture for itself

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and/or acquire from any supplier other than ABD or a supplier licensed under the ABD Patent Rights any quantity of nucleoside phosphoramidites for the commercial manufacture of oligonucleotides, provided that such supplier is supplying to HYBRIDON or HYBRIDON is making for itself **** ********** **********.

2.6 During the term of this Agreement, ABD grants HYBRIDON a license under the ABD Patent Rights to obtain phosphoramidites from a third party pursuant to Sections 5.3 and 5.4 of this Agreement and to use phosphoramidites and processes claimed in such Patent Rights to make Oligonucleotides in accordance with the payment provisions of Article 5 of this Agreement.

ARTICLE 3.

DELIVERY

3.1 Hybridon shall furnish ABD written purchase orders for ABD Materials being purchased hereunder not later than sixty (60) days prior to the requested delivery date for such order. Such purchase orders shall be deemed accepted unless rejected in writing by ABD within ten (10) days after its receipt of such order. The only terms of such purchase order that shall be binding are those relating to quantity, price and date of delivery. All other terms of the purchase and sale hereunder shall be interpreted solely in accordance with this Agreement.

3.2 ABD shall place Manufacturing/Expiry dates on all invoices and bulk packages for the ABD Materials which it is supplying to HYBRIDON. ABD undertakes and agrees that at the time of delivery of any ABD Materials to HYBRIDON, such ABD Materials will have a remaining shelf life as indicated in the regulatory submissions and approvals relating thereto.

3.3 ABD shall deliver its ABD Materials F.O.B. ABD's manufacturing facility, Foster City, CA.

ARTICLE 4.

COMPLAINTS

4.1 Within forty-five (45) days after deliver of ABD Materials to HYBRIDON, HYBRIDON shall perform all necessary analytical and quality control tests on such Materials in order to determine whether they comply with the quantity ordered and the ABD Specifications. HYBRIDON shall notify ABD in writing within this forty-five (45) day period of any complaints regarding qualitative

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or quantitative impairment of such ABD Materials supplied by ABD hereunder.

4.2 In the event that HYBRIDON has a complaint with respect to any ABD Materials supplied, then:

(a) If the complaint concerns the quantity of such ABD Materials supplied, HYBRIDON shall provide ABD with sufficient evidence to substantiate the short quantity. Upon receipt of such evidence, ABD shall, at HYBRIDON's election, either (i) supply to HYBRIDON the short quantity as promptly as practicable, but in no event later than sixty (60) days after receipt of such evidence, or (ii) refund to HYBRIDON a PRO RATA portion of the purchase price of such ABD Materials;

(b) If the complaint concerns the non-conformity of such ABD Materials with the ABD Specifications, HYBRIDON shall provide sufficient analytical evidence to substantiate the impairment. Upon receipt of such evidence, ABD shall replace the impaired amount of ABD Materials with an equal amount of ABD Materials conforming to the ABD Specifications as promptly as practicable, but in no event later than ninety (90) days after receipt of such evidence. ABD shall provide such replacement quantity of ABD Materials at no additional

cost to HYBRIDON.

(c) Should ABD disagree with HYBRIDON about the shortfall or impairment, ABD shall supply the short quantity or replacement quantity according to Section 4.2(a) or (b) above, and then both Parties shall immediately and jointly carry out the necessary analysis to determine whether HYBRIDON's complaint is valid. If the joint analysis affirms the validity of the complaint, then the matter shall be deemed conclusively resolved. If the joint analysis shows the complaint to be invalid, then HYBRIDON will credit ABD for the short quantity or replacement quantity provided by ABD, against the next future order of ABD Materials by HYBRIDON in accordance with the terms of this Agreement, or if such future order is not made within the term of this Agreement, the payment for such ABD Materials which would be due under Article 5 of this Agreement shall be remitted promptly.

(d) In the event that the Parties still disagree about the shortfall or impairment after the joint analysis under Section 4.2(c) above, then the matter shall be submitted to an independent laboratory chosen jointly by the Parties. The findings of the independent laboratory shall be final and binding on both Parties and the expenses of the independent laboratory shall be paid by the nonprevailing Party.

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ARTICLE 5.

COMPENSATION FOR MATERIALS

5.1 For sales or other dispositions by HYBRIDON of ********** ********** Hybridon shall ********** to the ******* ***** for the ********** the ******** ********** of the Net Sales of such ******* ********** Hybridon shall also pay to ABD, for any orders of ********** by the ********** ********** of such ********** to such ********** to the ********** for the ********** used to ********** the ********** of Net Sales of such **********.

5.2 For sales or other dispositions by HYBRIDON of ********** ***** who has been ********** and for which said ********** provided by ********** HYBRIDON shall pay to ********** to the ********** of the ********** ********** of net Sales of such ********** provided that such ********** were ********** ******, but for this Agreement, ********** **********. If such a ********** then HYBRIDON shall pay to ********** to the ********** of the ********** for such **********

5.3 For sales or other dispositions by HYBRIDON of ********** ***** who has been ********** and for which said ********** provided by a party which is **********

******* HYBRIDON shall pay to ****************************** of ********** purchased from **********, provided that such ********** were made using ********** but for this Agreement, ********** ********** or which are ********** In addition, HYBRIDON shall pay to ********** of Net Sales of such **********, provided that such ********** were ********** but for this Agreement, ***** **********

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5.4 For ********** used by HYBRIDON to ********** for its own use, HYBRIDON shall pay to ********** of the ********** if such ********** are supplied by ***. If such ********** are supplied ********** ********** then if such ********** were made using ********** but for this Agreement, ********** ********** or which are ********** ********** or such ********** were made ********** ****** but for this Agreement ********** ********** then HYBRIDON shall pay to ********** **********

5.5 HYBRIDON shall keep records of all sales of Hybridon Oligonucleotides to third parties according to GAAP. Forty-five (45) days after the end of each calendar quarter, Hybridon shall report to ABD all sales of Hybridon Oligonucleotides, the royalty due ABD thereunder, and the basis for determination of such royalty. Each such report shall be accompanied by a check for the amount of royalties due ABD.

5.6 ABD shall have the right, no more than once in any calendar year, to have HYBRIDON's books and records audited to the extent necessary to confirm HYBRIDON's royalties due to ABD. Such audit shall take place on no less than ten (10) days' written notice and shall be conducted during normal business hours. Such audit will be performed by an auditor chosen by ABD and reasonably acceptable to HYBRIDON. Such audit shall be conducted at ABD's expense; PROVIDED, HOWEVER, that if the results of the audit show that HYBRIDON has under-reported its royalties due to ABD by ten percent (10%) or more, then HYBRIDON will reimburse ABD for the cost of the audit. If HYBRIDON has under-reported its royalties due to ABD, then HYBRIDON shall pay to ABD any amounts underpaid hereunder.

ARTICLE 6.

WARRANTY AND INDEMNIFICATION

6.1 ABD represents and warrants that the ABD Materials to be supplied by ABD to HYBRIDON hereunder: (a) will conform in all material respects to the relevant ABD Specifications; and (b) will have been manufactured in accordance with the current ISO 9001 requirements and all applicable laws, rules, directives and regulations. Except as otherwise stated herein, ABD's only liability for breach of this warranty shall be to replace any impaired ABD Materials with conforming ABD Materials in accordance with

Article 4 above.

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6.2 ABD hereby agrees to indemnify and hold HYBRIDON harmless from and against all claims, liabilities, costs and expenses (including reasonable attorneys' fees and court costs) incurred or sustained by HYBRIDON in connection with:

(a) infringement claims or misappropriation of trade secret claims of third parties made against HYBRIDON in connection with such ABD Materials, but not for patent infringement by oligonucleotides manufactured from such ABD Materials, provided that HYBRIDON shall promptly notify ABD of any such claims and ABD shall have the right, at its own expense, to hire counsel of its choice and exercise sole control over the litigation; and

(b) a breach of any of ABD's representations, warranties or covenants contained herein.

6.3 If HYBRIDON ********** ****** prior to the Effective Date of this Agreement, then ********** ********** with respect to any and all ********** ********** prior to the effective date of this agreement.

6.4 EXCEPT AS STATED ABOVE, ABD DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, WITH RESPECT TO SUCH ABD MATERIALS, INCLUDING WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

6.5 HYBRIDON hereby agrees to indemnify and hold ABD harmless from and against all claims, liabilities, costs and expenses (including reasonable attorneys' fees and court costs) incurred or sustained by ABD in connection with:

(a) infringement claims or misappropriation of trade secret claims of third parties made against ABD in connection with ********** ********** provided that ABD shall promptly notify HYBRIDON of any such claims and HYBRIDON shall have the right, at its own expense, to hire counsel of its choice and exercise sole control over the litigation;

(b) claims of inducement to infringe or contributory infringement of any and all of U.S. Patents Nos. ********** and any and all patents issuing from parent cases, reissues, reexaminations, renewals, extensions, divisions and continuation patents, and

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continuations-in-part of the foregoing and any foreign counterparts and any other form of patent coverage directed to the inventions described in such patents or patent applications or covered by any such patents or patent applications, provided that ABD shall promptly notify HYBRIDON of any such claims and HYBRIDON shall have the right, at its own expense, to hire counsel of its choice and exercise sole control over the litigation; and

(c) a breach of any of HYBRIDON's representations, warranties or convents contained herein.

6.6 EXCEPT AS STATED ABOVE, HYBRIDON DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, WITH RESPECT TO SUCH OLIGONUCLEOTIDES, INCLUDING WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

ARTICLE 7.

INSPECTIONS

7.1 In order to assure the application and maintenance of the current ISO 9001 requirements with respect to the ABI Materials which it is purchasing hereunder, HYBRIDON may perform regular inspections of ABD's manufacturing facility, quality control laboratory and other areas of its facility that relate to the production of such Materials. HYBRIDON shall give ABD at least thirty (30) days' prior written notice of each such inspection. In connection with such inspections, ABD will permit review of its manufacturing documents by HYBRIDON's quality assurance personnel.

7.2 At least twenty (20) days prior to visiting ABD's facilities and laboratories to conduct an inspection pursuant to Section 7.1 above, HYBRIDON shall send to ABD a questionnaire which covers various aspects of ABD's ISO 9001. The completed questionnaire, an index of titles of ABD's ISO 9001 documents and a copy of ABD's quality manual shall be returned to HYBRIDON at least three (3) working days before the scheduled date of the HYBRIDON's inspection.

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ARTICLE 8.

RESEARCH AND MARKETING COLLABORATION

8.1 ABD will ********** to provide customers to HYBRIDON for oligonucleotide manufacturing at scales above ********** HYBRIDON shall have no obligation to provide oligonucleotides to any such customer, unless HYBRIDON enters into a written supply agreement satisfactory to HYBRIDON with such customer. ABD will not manufacture, sell or commercialize oligonucleotides for therapeutic purposes for third parties

at scales ********** other than to satisfy its obligations under agreements with third parties entered into prior to the Effective date of this Agreement and future modifications of such third party agreements.

8.2 The Parties shall discuss the commercialization by ABD of certain new HYBRIDON reagents technology for the ********** **********. Such technology includes ********** **********. If ABD determines that it desires to market products based upon such technology, the Parties shall negotiate in good faith a license agreement under which HYBRIDON will manufacture such products and supply them to ABD; ABD will package, distribute and sell such products, and HYBRIDON will provide ABD with the necessary patent rights and know-how available to HYBRIDON for the marketing of such products. Such commercialization may include the payment of licensing fees by ABD to HYBRIDON or the making of an equity investment by ABD in HYBRIDON.

8.3 The Parties will consider in good faith collaborating with each other on the commercialization of additional new reagents and materials for **********. Such reagents will include **********. In the event that the Parties negotiate a license agreement for such commercialization, Hybridon would be responsible for the manufacture of such reagents, and supply them to ABD; ABD would package, distribute and sell such products, and HYBRIDON would provide ABD with the necessary patent rights and know-how available to HYBRIDON for the marketing of such products. Alternatively, under such an agreement ABD would manufacture, package, distribute and sell such products, HYBRIDON would provide ABD with the necessary patent rights and know-how available to HYBRIDON for the marketing of such products and ABD would pay a royalty to HYBRIDON based upon the net sales of such products. Such collaborations may include the payment of licensing fees by ABD to HYBRIDON or the making of an equity investment by ABD in HYBRIDON.

* Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote such omissions.

Confidential Materials omitted and filed separately
with the Securities and Exchange Commission.
Asterisks denote such omissions.

8.4 The Parties will consider in good faith collaborating with each other on the commercialization of new systems and techniques for ********** **********

8.5 Except as provided in Section 8.1, nothing in this Article 8 shall be construed to prohibit ABD or HYBRIDON from entering into any other agreement with any other party concerning subject matter which is the same as or similar to the subject matter of this Agreement.

ARTICLE 9.

NOTICES

Any notice, statement, purchase order, document or other communication under this Agreement shall be in writing and delivered personally, by courier, by pre-paid registered mail or by facsimile to the Parties at the following respective addresses:

HYBRIDON:

Hybridon, Inc.
155 Fortune Blvd.
Milford, MA 01757
Fax: 1-508-751-7791
Attention: Vice President - Manufacturing

ABD:

Applied Biosystems
850 Lincoln Center Drive
Foster City, California 94404
Fax: 1-415-572-2743
Attention: Chemical Manufacturing Manager

or to such other address as the Party in question may in writing direct.

Notices shall be effective upon receipt.

ARTICLE 10.

TERM AND TERMINATION

* Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote such omissions.

10.1 This Agreement shall come into force and effect as of September 1, 1996 and shall end, unless terminated earlier pursuant to Section 10.2 or Section 10.3 below, on the last day of the Term of this Agreement.

10.2 In the event of a breach of any of the provisions hereof by either Party, the non-breaching Party may terminate this Agreement, effective immediately with the delivery of a notice of termination, if such breach is not cured by the breaching Party within thirty (30) days after receiving written notice of such breach from the non-breaching Party.

10.3 Either party may terminate this agreement upon 90 days written notice to the other party.

10.4 At each six (6) month anniversary of the Effective Date of this Agreement, the Parties shall review this Agreement and its performance hereunder. If either party is not satisfied with this Agreement or its performance as of the time of such anniversary, the parties shall negotiate in good faith to modify this Agreement in writing to address such dissatisfaction.

ARTICLE 11.

GOVERNING LAW AND ARBITRATION

11.1 Any claim arising from this Agreement which is challenged, any controversy or dispute regarding the execution of this Agreement, including its termination, as well as any dispute with regard to the interpretation or application of this Agreement must be submitted to arbitration to the exclusion of the courts, the whole in accordance with the procedure hereinafter established; PROVIDED, HOWEVER, that notwithstanding anything

contained in this Section 11.1 to the contrary, each Party shall have the right to institute judicial proceedings against the other Party or anyone acting by, through or under such other Party in order to enforce the instituting Party's rights hereunder through reformation of contract, specific performance, injunction or similar equitable relief.

11.2 Any Party wishing to submit a claim, conflict, dispute or disagreement to arbitration must forward to the other Party a written notice (hereinafter referred to as "Notice to Arbitrate") containing a reasonably detailed description of the claim, conflict, dispute or disagreement.

11.3 Each claim, conflict, dispute or disagreement submitted to arbitration hereunder shall be heard by three arbitrators, two of whom shall be appointed by the respective Parties and the third appointed by agreement of the first two

arbitrators, or, in the absence of agreement within thirty (30) days, by the President of the American Arbitration Association.

11.4 The date of hearing of the Parties in dispute must be held within sixty (60) days following the receipt of the Notice to Arbitrate. Each Party shall submit to the arbitrators a proposed ruling. The arbitrators must choose one of the two proposed rulings by a majority vote of the arbitrators. The arbitrators may not amend or supplement either proposed ruling. The arbitrators' choice must be delivered to the Parties within thirty (30) days following the hearing of the Parties. Any such award which is rendered shall be final, binding and without appeal, and shall become executory as a judgment against the Parties.

11.5 The arbitration shall be conducted in English in accordance with the commercial arbitration rules of the American Arbitration Association. The arbitration, including the rendering of the award, shall take place in Worcester, Massachusetts if ABD is the plaintiff Party or in Foster City, California if HYBRIDON is the plaintiff Party.

11.6 This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, except for its choice of law principles.

ARTICLE 12.

GENERAL

12.1 Each Party agrees that it is not an agent of the other Party and that it has no authority to bind the other Party in any manner. This Agreement shall not be construed so as to constitute either Party as a partner, joint venturer, agent or representative of the other Party for any purpose whatsoever.

12.2 This Agreement and everything contained herein shall inure to the benefit of and be binding upon the successors and assigns of the Parties. This Agreement is transferable by HYBRIDON to any entity which HYBRIDON may establish to undertake its contract manufacturing of oligonucleotides, provided that HYBRIDON owns or controls at least 50% of the voting stock of such entity. This Agreement may not be assigned by ABD without the prior written consent of HYBRIDON.

12.3 This Agreement constitutes the complete and exclusive agreement between the Parties hereto and supersedes all prior agreements, whether written or oral, and all other communications between the Parties relating to the subject matter of this Agreement, except that the Parties have previously entered into a

Confidentiality Agreement, dated March 20, 1996, the provisions of which are hereby incorporated by reference.

12.4 This Agreement can be amended only in writing signed by duly authorized representatives of each Party.

12.5 Neither Party shall be liable in damages for any delay or default in performing any obligation hereunder if that delay or default is due to any cause beyond the reasonable control and without fault or negligence of that Party; PROVIDED that: (i) in order to excuse its delay or default hereunder, a Party shall notify the other of the occurrence or the cause, specifying the nature and particulars thereof and the expected duration thereof; (ii) within ten (10) days after the termination of such occurrence or cause, such Party shall give notice to the other Party specifying the date of termination thereof; and (iii) no payment obligation shall be excused or suspended, as a result of this Section 10.6 or otherwise. All obligations of both Parties shall return to being in full force and effect upon the termination of such occurrence or cause. For the purposes of this Section 10.6, a "cause beyond the reasonable control" of a Party shall include, without limiting the generality of the phrase, any act of God, act of any government or other authority, industrial dispute, fire, explosion, accident, power failure, flood, riot or war (declared or undeclared).

12.6 Headings in this Agreement are for the convenience of the Parties only and shall not be used in the construction of this Agreement or any part thereof.

12.7 In the event that any provision of this AGREEMENT is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the Parties shall negotiate a substitute provision that, to the extent possible, accomplishes the original business purpose.

12.8 This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their successors and permitted assigns.

12.9 This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of such together shall constitute one and the same instrument.

IN WITNESS WHEREOF the parties hereto have executed this Agreement.

HYBRIDON, INC.	P.E. APPLIED BIOSYSTEMS
By: /s/ Anthony J. Payne	By: /s/ Michael Hunkapillar
Name: Anthony J. Payne	Name: Michael Hunkapillar
Title: President, Manufacturing	Title: Vice President

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Confidential Materials omitted and filed separately
with the Securities and Exchange Commission.
Asterisks denote such omissions.

APPENDIX A

Patent Number	Title
*******	**********
*******	**********
*******	**********
*******	**********
*******	**********
*******	**********
*******	**********
	**********
*******	**********
	**********
*******	**********
*******	**********
*******	**********
	**********

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EXHIBIT 11

HYBRIDON, INC. AND SUBSIDIARIES
(A DEVELOPMENT STAGE COMPANY)

COMPUTATION OF PRO FORMA NET LOSS PER COMMON SHARE (1)

	YEAR ENDED DECEMBER 31, 1996	1995
NET LOSS	$(46,852,600)	$(34,546,676)
EQUIVALENT SHARES:		
Weighted average common stock outstanding during the period	22,877,775	1,821,295
Conversion of preferred stock	1,339,295	13,850,221
Dilutive effect of common equivalent shares issued subsequent to October 31, 1994 (2)	43,632	523,584
	24,260,702	16,195,100
PRO FORMA NET LOSS PER COMMON SHARE	$(1.93)	$(2.13)

<FN>

(1) Primary and fully diluted net loss per share has not been separately presented, as the amounts would not be meaningful.

(2) Pursuant to Securities and Exchange Commission Staff Accounting Bulletin No. 83, stock options issued at prices below the initial public offering price per share (cheap stock) during the 12-month period immediately preceding the initial filing date of the Company's Registration Statement of its initial public offering have been included as outstanding for all periods presented. The dilutive effect of the common and common stock equivalents was computed in accordance with the treasury stock method.

Exhibit 23.1

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the use of our report dated February 21, 1997 (except with respect to the matter discussed in Note 1, as to which the date is March 26, 1997) included in this Form 10-K into the Company's previously filed Registration Statements File No's 33-3896, 33-3898, 33-3900 and 33-3902.

ARTHUR ANDERSEN LLP

Boston, Massachusetts,
March 27, 1997

EXHIBIT 23.2

[LETTERHEAD OF BANNER & WITCOFF, LTD. APPEARS HERE]

March 7, 1997

Hybridon, Inc.
620 Memorial Drive
Cambridge, Massachusetts 02139

Re: Hybridon, Inc. -- Annual Report on Form 10-K

Dear Sirs:

Banner & Witcoff, Ltd. hereby consents to the reference to our firm under the section "Business -- Patents, Trade Secrets and Licenses" in the Hybridon, Inc. Annual Report on Form 10-K for the year ended December 31, 1996.

Yours very truly,

/s/ Leon R. Yankwich

Leon R. Yankwich

encl.

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