

PEREGRINE PHARMACEUTICALS INC

FORM 424B4

(Prospectus filed pursuant to Rule 424(b)(4))

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This filing is made pursuant to Rule 424(b)(4)
under the Securities Act of 1933 in connection
with Registration Statement No. 333-63773

PROSPECTUS

2,896,054 Shares

[Techniclone Logo Here]	TECHNICLONE CORPORATION COMMON STOCK
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This Prospectus may be used only in connection with the resale, from time to time, of up to 2,896,054 shares (the "Shares") of common stock, par value \$.001 per share ("Common Stock"), of Techniclone Corporation, a Delaware corporation ("Techniclone" or the "Company"), by Resonance Limited and The Tail Wind Fund, Ltd. (the "Registered Stockholders") for their own benefit in transactions in the over-the-counter market, at prevailing market prices, at negotiated prices or otherwise. This Prospectus has been prepared for the purposes of registering the Shares under the Securities Act of 1933, as amended (the "Securities Act") to allow for future sales by the Registered Stockholders to the public without restriction. To the knowledge of the Company, the Registered Stockholders have made no arrangement with any brokerage firm for the sale of the Shares. Many of the Shares offered by the Registered Stockholders may be acquired by such Registered Stockholders upon exercise of warrants to purchase Common Stock issued by the Company to the Registered Stockholders (collectively, the "Warrants"). Of the 2,896,054 Shares offered hereby, (i) 2,545,454 Shares were issued on or about June 16, 1998 to the Registered Stockholders pursuant to the terms of a Regulation D Common Stock Equity Line Subscription Agreement dated as of June 16, 1998 (as amended, the "Equity Line Agreement") between the Company and the Registered Stockholders and an additional 96,055 Shares were issued to the Registered Stockholders in December 1998 (the "Initial Shares") and (ii) up to an additional 254,545 Shares may be issued to the Registered Stockholders upon exercise of outstanding warrants issued on or about June 16, 1998 to the Registered Stockholders pursuant to the Equity Line Agreement, at an exercise price of \$1.375 per share (the "Warrants").

All or a portion of the Shares offered by this Prospectus may be offered for sale, from time to time, by the Registered Stockholders, pursuant to this Prospectus, in one or more private or negotiated transactions, in open market transactions on The Nasdaq SmallCap Market ("Nasdaq SmallCap Market"), in settlement of short sale transactions, in settlement of options transactions, or otherwise, or by a combination of these methods, at fixed prices that may be changed, at market prices prevailing at the time of the sale, at prices related to such market prices, at negotiated prices, or otherwise. The Registered Stockholders may effect these transactions by selling the Shares directly to one or more purchasers or to or through broker-dealers or agents including: (a) in a block trade in which the broker or dealer so engaged will attempt to sell the shares of Common Stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) in purchases by a broker or dealer and resale by such broker or dealer as a principal for its account pursuant to this Prospectus; (c) in ordinary brokerage transactions and (d) in transactions in which the broker solicits purchasers. The compensation to a particular underwriter, broker-dealer or agent may be in excess of customary commissions. The Registered Stockholders are "underwriters" within the meaning of the Securities Act, in connection with the sale of the Shares offered hereby. The Registered Stockholders will pay all commissions, transfer taxes and other expenses associated with the sales of the Shares by them. The Company will pay the expenses of the preparation of this prospectus. The Company has agreed to indemnify the Registered Stockholders against certain liabilities, including liabilities arising under the Securities Act. The Company will not receive any of the proceeds from the sale of the Shares by the Registered Stockholders. The Company will not receive any proceeds from the exercise of the Warrants, which may only be exercised pursuant to a cashless exercise by the Registered Stockholders. Concurrently with sales under this Prospectus, the Registered Stockholders may effect other sales of Common Stock or Shares under Rule 144 or other exempt resale transactions. There can be no assurance that the Registered Stockholders, or any of them, will sell any or all of the Shares offered hereby. See "Plan of Distribution."

The Company's Common Stock is registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is listed on the Nasdaq SmallCap Market under the symbol "TCLN". On January 13, 1999, the last reported sale price of the Company's Common Stock on the Nasdaq SmallCap Market was \$1.25 per share.

**SEE "RISK FACTORS" BEGINNING ON PAGE 7, FOR A DISCUSSION
OF CERTAIN FACTORS THAT SHOULD BE CONSIDERED BY INVESTORS.**

**THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND
EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES
AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION
PASSED UPON THE ACCURACY OR ADEQUACY OF THIS
PROSPECTUS. ANY REPRESENTATION TO THE
CONTRARY IS A CRIMINAL OFFENSE.**

The date of this Prospectus is January 15, 1999

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No dealer, sales representative or any other person has been authorized to give any information or to make any representations in connection with the offering described herein other than those contained or incorporated by reference in this Prospectus, and, if given or made, such information or representations must not be relied upon as having been authorized by the Company or any of the Registered Stockholders. This Prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, nor shall there be any sale of these securities by any person in any jurisdiction in which such an offer, solicitation or sale would be unlawful. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Company since the date hereof or that the information contained herein is correct as of any time subsequent to the date hereof.

AVAILABLE INFORMATION

The Company has filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-3 (herein, together with all amendments and exhibits, referred to as the "Registration Statement") under the Securities Act relating to the Shares being offered pursuant to this Prospectus. For further information pertaining to the Common Stock and the Shares to which this Prospectus relates, reference is made to such Registration Statement. This Prospectus constitutes the prospectus of the Company filed as a part of the Registration Statement and it does not contain all information set forth in the Registration Statement, certain portions of which have been omitted in accordance with the rules and regulations of the Commission. In addition, the Company is subject to the informational requirements of the Exchange Act and, in accordance therewith, files reports, proxy statements and other information with the Commission relating to its business, financial statements and other matters. Reports and proxy and information statements filed pursuant to Section 14(a) and 14(c) of the Exchange Act and other information filed with the Commission as well as copies of the Registration Statement can be inspected and copied at the public reference facilities maintained by the Commission at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Commission's Midwest Regional Offices at 500 West Madison Street, Chicago, Illinois 60606 and Northeast Regional Office at 7 World Trade Center, New York, New York 10048. Copies of such material can also be obtained at prescribed rates from the Public Reference Section of the Commission at its principal office at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. Such material may also be obtained electronically by visiting the Commission's web site on the Internet at <http://www.sec.gov>. The Common Stock of the Company is traded on the Nasdaq SmallCap Market under the symbol "TCLN". Reports, proxy statements and other

information concerning the Company may be inspected at the National Association of Securities Dealers, Inc., at 1735 K Street, N.W., Washington D.C. 20006.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents, which have been filed by the Company with the Commission, are incorporated by this reference into this Prospectus:

- (1) The Company's Annual Report on Form 10-K for the fiscal year ended April 30, 1998, as filed with the Commission on July 29, 1998 pursuant to Section 13(a) of the Exchange Act.
- (2) The Company's Definitive Proxy Statement with respect to the Annual Meeting of Stockholders held on October 13, 1998, as filed with the Commission on August 27, 1998.
- (3) The Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 1998, as filed with the Commission on September 14, 1998.
- (4) The Company's Quarterly Report on Form 10-Q for the quarter ended October 31, 1998, as filed with the Commission on December 15, 1998.
- (5) The Company's Current Report on Form 8-K, as filed with the Commission on January 7, 1999.
- (6) The Company's Current Report on Form 8-K, as filed with the Commission on June 29, 1998.
- (7) The Company's Current Report on Form 8-K, as filed with the Commission on March 9, 1998.
- (8) The Company's Current Report on Form 8-K, as filed with the Commission on November 24, 1997.
- (9) The Company's Current Report on Form 8-K, as filed with the Commission on May 12, 1997, as amended by Form 8-K/A Amendment No. 1 to such Form 8-K as filed with the Commission on October 2, 1997, and as further amended by Form 8-K/A Amendment No. 2 to such Form 8-K as filed with the Commission on October 14, 1997.
- (10) The Company's Definitive Proxy Statement with respect to the Annual Meeting of Stockholders held on April 23, 1998, as filed with the Commission on March 17, 1998.
- (11) The description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A and Form 8-B (Registration of Successor Issuers) filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description
- (12) All other reports filed by the Company pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the Company's fiscal year ended April 30, 1998.

All documents filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus and prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which re-registers all securities then remaining unsold, shall be deemed to be incorporated herein by this reference and to be made a part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein, or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

The Company will provide, without charge, to each person to whom a copy of this Prospectus is delivered, upon written or oral request of such person, a copy of any or all of the foregoing documents and information that has been or may be incorporated by reference herein (other than exhibits to such documents). Requests for such documents and information should be directed to Techniclone Corporation, Attention: Steven C. Burke, Chief Financial Officer, 14282 Franklin Avenue, Tustin, California 92780-7017, telephone number (714) 508- 6000.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements incorporated by reference from documents filed with the Commission by the Company are or may constitute forward-looking statements. Such statements include those contained herein or therein regarding the development or possible assumed future results of operations of the Company's business, the markets for the Company's products, anticipated capital expenditures, regulatory developments, any statements preceded by, followed by or that include the words "believes," "expects," "anticipates," or similar expression, and other statements contained or incorporated by reference herein regarding matters that are not historical facts. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. The risks and uncertainties that may cause actual results to differ materially include, among others, risks and uncertainties associated with completing pre-clinical and clinical trials of the Company's technologies; obtaining additional financing to support the Company's operations; obtaining regulatory approval for such technologies; complying with other governmental regulations applicable to the Company's business; obtaining the raw materials necessary in the development of such compounds; consummating collaborative arrangements with corporate partners for product development; achieving milestones under collaborative arrangements with corporate partners; developing the capacity to manufacture, market and sell the Company's products, either directly or indirectly with collaborative partners; developing market demand for and acceptance of such products; competing effectively with other pharmaceutical and biotechnological products; attracting and retaining key personnel; protecting proprietary rights; accurately forecasting operating and capital expenditures, other commitments, or clinical trial costs, general economic conditions, pricing pressures and uncertainties of litigation. Assumptions relating to budgeting, marketing, product development and other management decisions are subjective in many respects and thus susceptible to interpretations and periodic revisions based on actual experience and business developments, the impact of which may cause the Company to alter its capital expenditure or other budgets, which may in turn affect the Company's business, financial position and results of operations. As a result of these factors, the Company's revenues and expenses could vary significantly from quarter to quarter, and past financial performance should not be considered a reliable indicator of future performance. All subsequent written and oral forward-looking statements attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by the cautionary statements set forth or referred to above in this paragraph. Investors are cautioned not to place undue reliance on such statements which speak only as of the date hereof. The Company undertakes no obligation to release publicly any revision to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events, except as may be required by the federal securities laws.

THE COMPANY

GENERAL

Techniclone Corporation was incorporated in the State of Delaware on September 25, 1996. On March 24, 1997, Techniclone International Corporation, a California corporation (a predecessor company incorporated in June 1981), was merged with and into Techniclone Corporation, a Delaware corporation (collectively "Techniclone"). This merger was effected for the purpose of effecting a change in the Company's state of incorporation from California to Delaware and making certain changes in the Company's charter documents. The "Company" refers to Techniclone Corporation, Techniclone International Corporation, its former subsidiary, Cancer Biologics Incorporated ("CBI"), which was merged into the Company on July 26, 1994 and its wholly-owned subsidiary Peregrine Pharmaceuticals, Inc., a Delaware corporation ("Peregrine").

The Company is engaged in the research, development and commercialization of novel cancer therapeutics in two principal areas: 1) direct tumor targeting agents for the treatment of refractory malignant lymphoma and 2) collateral targeting agents for the treatment of solid tumors.

Oncolym(R), the Company's most advanced direct tumor targeting agent candidate, is an investigational murine monoclonal antibody radiolabeled with I131 which is being studied in a Phase II/III trial for the treatment of intermediate and high-grade relapsed or refractory B-cell non-Hodgkins lymphoma ("NHL"). The clinical trials are currently being held at participating medical centers, including, M.D. Anderson Cancer Center, George Washington University Medical Center, Iowa City VA Medical Center, Queen's Medical Center- Hawaii, University of Illinois at Chicago Medical Center, The Medical University of South Carolina and University of Miami Hospital. The Company currently anticipates adding up to six additional clinical trial sites for Oncolym(R). Following the completion of the clinical trials, the Company expects to file an application with the United States Food and Drug Administration ("FDA") to market Oncolym(R) in the United States.

Collateral tumor targeting may be described as the therapeutic strategy of targeting peripheral structures and cell types, other than the viable cancer cells directly, as a means to treat solid tumors. The Company's three leading advanced collateral targeting agents for solid tumors are Tumor Necrosis Therapy ("TNT"), Vascular Targeting Agents ("VTAs"), and Vasopermeation Enhancement Agents ("VEAs").

TNT is a universal tumor targeting therapy potentially capable of treating a wide range of solid tumors. Radiolabeled TNT agents are believed to act by binding to dead or dying cells at the core of the tumor and irradiating the tumor from the inside out. TNT is potentially capable of carrying a wide variety of therapeutic agents to the interior of solid tumors. The Company's first TNT based product is an investigational, chimeric monoclonal antibody radiolabeled with the I131 isotope. During March 1998, the Company began enrolling patients into a Phase I study of TNT for the treatment of malignant glioma (brain cancer). The Company has since filed a protocol with the FDA to begin a Phase II study of TNT for the treatment of malignant glioma, which commenced in December 1998. The clinical trials are currently being conducted at The Medical University of South Carolina with additional clinical sites underway. The Company has also recently received an unrestricted grant to conduct Phase I/II systemic trials of TNT for prostate, pancreatic and liver cancers at a clinical site in Mexico City.

VTAs are believed to act by destroying the vasculature of solid tumors. VTAs are multi-functional molecules that target the capillaries and blood vessels of solid tumors. Once there, these agents block the flow of oxygen and nutrients to the underlying tissue by creating a blood clot in the tumor. In preclinical trials, VTAs have caused clots in animals and within hours of the clot's formation, the tumor begins to die and necrotic regions are formed. Since every tumor in excess of 2mm in size forms an expanding vascular network during tumor growth, VTAs could be effective against all types of solid tumors.

Techniclone's scientists are doing preliminary studies on VTAs. The VTA technology was acquired in April of 1997 through the Company's acquisition of Peregrine Pharmaceuticals, Inc.

VEAs use vasoactive compounds (molecules that cause tissues to become more permeable) linked to monoclonal antibodies, such as the TNT antibody, to increase the vasoactive permeability at the tumor site and are believed to act by increasing the concentration of killing agents at the core of the tumor. In pre-clinical studies, the Company's scientists were able to increase the uptake of drugs or isotopes within a tumor by between 150% and 420%, if a vasoactive agent was given several hours prior to the therapeutic treatment. The therapeutic drug can be a chemotherapy drug, a radioactive isotope or other cancer fighting agent. This enhancement of toxic drug dosing is achieved by altering the physiology and, in particular, the permeability of the blood vessels and capillaries that serve the tumor. As the tumor vessels become more permeable, the amount of therapeutic treatment reaching the tumor cells increases.

The principal executive offices of the Company are located at 14282 Franklin Avenue, Tustin, California 92780-7017. The Company's telephone number is (714) 508-6000.

RISK FACTORS

AN INVESTMENT IN THE SHARES OF COMMON STOCK BEING OFFERED HEREBY INVOLVES A HIGH DEGREE OF RISK. THE FOLLOWING FACTORS SHOULD BE CONSIDERED CAREFULLY IN EVALUATING THE COMPANY AND ITS BUSINESS BEFORE MAKING AN INVESTMENT IN THE COMMON STOCK OFFERED HEREBY, TOGETHER WITH ALL OF THE OTHER INFORMATION SET FORTH HEREIN OR INCORPORATED HEREIN BY REFERENCE IN THIS PROSPECTUS.

FLUCTUATION OF FUTURE OPERATING RESULTS. A number of factors could cause actual results to differ materially from anticipated future operating results. These factors include worldwide economic and political conditions and industry specific factors. If the Company is to remain competitive and is to timely develop and produce commercially viable products at competitive prices in a timely manner, it must maintain access to external financing sources until it can generate revenue from licensing transactions or sales of products. The Company's ability to obtain financing and to manage its expenses and cash depletion rate ("burn rate") is the key to the Company's continued development of product candidates and the completion of ongoing clinical trials. The Company expects that its burn rate will vary substantially from quarter to quarter as it funds non-recurring items associated with clinical trials, product development, antibody manufacturing and radiolabeling expansion and scale-up, patent legal fees and various consulting fees. The Company has limited experience with clinical trials and if the Company encounters unexpected difficulties with its operations or clinical trials, it may have to expend additional funds, which would increase its burn rate.

EARLY STAGE OF DEVELOPMENT. Since its inception, the Company has been engaged in the development of drugs and related therapies for the treatment of people with cancer. The Company's product candidates are generally in the early stages of development, with two product candidates currently in clinical trials. Revenues from product sales have been insignificant and throughout the Company's history there have been minimal revenues from product royalties. If the initial results from any of the clinical trials are poor, then management believes that those results will adversely effect the Company's ability to raise additional capital, which will affect the Company's ability to continue full-scale research and development for its antibody technologies. Additionally, product candidates resulting from the Company's research and development efforts, if any, are not expected to be available commercially for at least the next year. No assurance can be given that the Company's product development efforts, including clinical trials, will be successful, that required regulatory approvals for the indications being studied can be obtained, that its product candidates can be manufactured and radiolabeled at an acceptable cost and with appropriate quality or that any approved products can be successfully marketed.

NEED FOR ADDITIONAL CAPITAL. The Company has experienced negative cash flows from operations since its inception and expects the negative cash flow from operations to continue for the foreseeable future. The Company currently has commitments to expend additional funds for facilities construction, clinical trials, radiolabeling contracts, license contracts, severance arrangements, employment agreements, consulting agreements, and for the repurchase of LYM-1 (hereinafter referred to as "Oncolym(R)") marketing rights from Alpha Therapeutic Corporation ("Alpha") and Biotechnology Development, Ltd. ("BTD"). The Company expects operating expenditures related to clinical trials to increase in the future as the Company's clinical trial activity increases and scale-up for clinical trial production continues. As a result of increased activities in connection with the Phase II/III clinical trials for Oncolym(R) and Phase I and anticipated Phase II clinical trials for TNT and the development costs associated with VEAs and VTAs, the Company expects that the monthly negative cash flow will continue.

In December 1998, the Company consummated the sale/leaseback of its two corporate facilities in Tustin, California with an unrelated entity. The sale/leaseback transaction provides for the leaseback by the Company of the facilities for a twelve-year period with two five-year options to renew. The net

cash received by the Company, reduced by the amounts required to satisfy existing mortgages, expenses of the sale, lease deposits, prorated rent and increased borrowing related to the sale, amounted to approximately \$1.9 million.

Without obtaining additional financing, the Company believes that it has sufficient cash on hand to meet its obligations on a timely basis only through February 1999. The Company's ability to access funds under the Equity Line Agreement is subject to the satisfaction of certain conditions and the failure to satisfy these conditions may limit or preclude the Company's ability to access such funds, which could adversely affect the Company's business, immediate liquidity, financial position and results of operations unless additional financing sources are available. See "The Equity Line Agreement."

The Company must raise additional funds to sustain its research and development efforts, provide for future clinical trials, expand its manufacturing and radiolabeling capabilities, and continue its operations until it is able to generate sufficient additional revenue from the sale and/or licensing of its products. The Company will be required to obtain financing through one or more methods, including obtaining additional equity or debt financing and/or negotiating a licensing or collaboration agreement with another company. There can be no assurance that the Company will be successful in raising these funds on terms acceptable to it, or at all, or that sufficient additional capital will be raised to complete the research, development, and clinical testing of the Company's product candidates. The Company's future success is dependent upon raising additional money to provide for the necessary operations of the Company. If the Company is unable to obtain additional financing, the Company's business, financial position and results of operations would be adversely affected.

ANTICIPATED FUTURE LOSSES. The Company has experienced significant losses since inception. As of October 31, 1998, the Company's accumulated deficit was approximately \$79,991,000. The Company expects to incur significant additional operating losses in the future and expects cumulative losses to increase substantially due to expanded research and development efforts, preclinical studies and clinical trials, and scale-up of manufacturing and radiolabeling capabilities. The Company expects losses to fluctuate substantially from quarter to quarter. All of the Company's products are in development, preclinical studies or clinical trials, and no significant revenues have been generated from product sales. To achieve and sustain profitable operations, the Company, alone or with others, must successfully develop, obtain regulatory approval for, manufacture, introduce, market and sell its products. The time frame necessary to achieve market success is long and uncertain. The Company does not expect to generate significant product revenues for at least two years. There can be no assurance that the Company will ever generate product revenues sufficient to become profitable or to sustain profitability.

TECHNOLOGICAL UNCERTAINTY. The Company's future success depends significantly upon its ability to develop and test workable products for which the Company will seek FDA approval to market to certain defined groups. A significant risk remains as to the technological performance and commercial success of the Company's technology and products. The products currently under development by the Company will require significant additional laboratory and clinical testing and investment over the foreseeable future. The research, development and testing activities, together with the resulting increases in associated expenses, are expected to result in operating losses for the foreseeable future. Although the Company is optimistic that it will be able to complete development of one or more of its products, (i) the Company's research and development activities may not be successful; (ii) proposed products may not prove to be effective in clinical trials; (iii) patient enrollment in the clinical trials may be delayed or prolonged significantly, thus delaying the trials; (iv) the Company's product candidates may cause harmful side effects during clinical trials; (v) the Company's product candidates may take longer to progress through clinical trials than has been anticipated; (vi) the Company's product candidates may prove impracticable to manufacture in commercial quantities at a reasonable cost and/or with acceptable quality; (vii) the Company may not be able to obtain all necessary governmental clearances and approvals to market its products; (viii) the Company's product candidates may not prove to be commercially viable or successfully marketed; or (ix) the Company may not ever achieve significant revenues or profitable operations. In addition, the Company may encounter unanticipated problems, including

development, manufacturing, distribution, financing and marketing difficulties. The failure to adequately address these difficulties could adversely affect the Company's business, financial position and results of operations.

The results of initial preclinical and clinical testing of the products under development by the Company are not necessarily indicative of results that will be obtained from subsequent or more extensive preclinical studies and clinical testing. The Company's clinical data gathered to date with respect to its Oncolym(R) antibody are primarily from a Phase II dose escalation trial which was designed to develop and refine the therapeutic protocol to determine the maximum tolerated dose of total body radiation and to assess the safety and efficacy profile of treatment with a radiolabeled antibody. Further, the data from this Phase II dose escalation trial were compiled from testing conducted at a single site and with a relatively small number of patients. Substantial additional development and clinical testing and investment will be required prior to seeking any regulatory approval for commercialization of this potential product. There can be no assurance that clinical trials of Oncolym(R), TNT or other product candidates under development will demonstrate the safety and efficacy of such products to the extent necessary to obtain regulatory approvals for the indications being studied, or at all. Companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier trials. The failure to adequately demonstrate the safety and efficacy of Oncolym(R), TNT or any other therapeutic product under development could delay or prevent regulatory approval of the product and would adversely affect the Company's business, financial condition and results of operations.

LENGTHY REGULATORY PROCESS; NO ASSURANCE OF REGULATORY APPROVALS. Testing, manufacturing, radiolabeling, advertising, promotion, export and marketing, among other things, of the Company's proposed products are subject to extensive regulation by governmental authorities in the United States and other countries. In the United States, pharmaceutical products are regulated by the FDA under the Federal Food, Drug, and Cosmetic Act and other laws, including, in the case of biologics, the Public Health Service Act. At the present time, the Company believes that its products will be regulated by the FDA as biologics. Manufacturers of biologics may also be subject to state regulation.

The steps required before a biologic may be approved for marketing in the United States generally include (i) preclinical laboratory tests and animal tests, (ii) the submission to the FDA of an Investigational New Drug ("IND") application for human clinical testing, which must become effective before human clinical trials may commence, (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product, (iv) the submission to the FDA of a Product License Application ("PLA") or a Biologics License Application ("BLA"), (v) the submission to the FDA of an Establishment License Application ("ELA"), (vi) FDA review of the ELA and the PLA or BLA, and (vii) satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is made to assess compliance with Current Good Manufacturing Practices ("CGMP"). The testing and approval process requires substantial time, effort and financial resources and there can be no assurance that any approval will be granted on a timely basis, if at all. There can be no assurance that Phase I, Phase II or Phase III testing will be completed successfully within any specific time period, if at all, with respect to any of the Company's product candidates. Furthermore, the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

The results of preclinical and clinical studies, together with detailed information on the manufacture and composition of a product candidate, are submitted to the FDA as a PLA or BLA requesting approval to market the product candidate. Before approving a PLA or BLA, the FDA will inspect the facilities at which the product is manufactured, and will not approve the marketing of the product candidate unless CGMP compliance is satisfactory. The FDA may deny a PLA or BLA if applicable regulatory criteria are not satisfied, require additional testing or information, and/or require post-marketing testing and surveillance to monitor the safety or efficacy of a product. There can be no assurance that FDA approval of any PLA or BLA submitted by the Company will be granted on a

timely basis or at all. Also, if regulatory approval of a product is granted, such approval may entail limitations on the indicated uses for which it may be marketed.

Both before and after approval is obtained, violations of regulatory requirements, including the preclinical and clinical testing process, or the PLA or BLA review process may result in various adverse consequences, including the FDA's delay in approving or refusing to approve a product, withdrawal of an approved product from the market, and/or the imposition of criminal penalties against the manufacturer and/or license holder. For example, license holders are required to report certain adverse reactions to the FDA, and to comply with certain requirements concerning advertising and promotional labeling for their products. Also, quality control and manufacturing procedures must continue to conform to CGMP regulations after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with CGMP. Accordingly, manufacturers must continue to expend time, monies and effort in the area of production and quality control to maintain CGMP compliance. In addition, discovery of problems may result in restrictions on a product, manufacturer, including withdrawal of the product from the market. Also, new government requirements may be established that could delay or prevent regulatory approval of the Company's product candidates.

The Company will also be subject to a variety of foreign regulations governing clinical trials and sales of its products. Whether or not FDA approval has been obtained, approval of a product candidate by the comparable regulatory authorities of foreign countries must be obtained prior to the commencement of marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval. At least initially, the Company intends, to the extent possible, to rely on licensees to obtain regulatory approval for marketing its products in foreign countries.

COMMERCIAL PRODUCTION. To conduct clinical trials on a timely basis, obtain regulatory approval and be commercially successful, the Company must scale-up its manufacturing and radiolabeling processes and ensure compliance with regulatory requirements of its product candidates so that those product candidates can be manufactured and radiolabeled in increased quantities. As the Company's products currently in clinical trials, Oncolym(R) and TNT, move towards FDA approval, the Company or contract manufacturers must scale-up the production processes to enable production and radiolabeling in commercial quantities. The Company has expended significant funds for the scale-up of its antibody manufacturing capabilities for clinical trial requirements for its Oncolym(R) and TNT products and for refinement of its radiolabeling processes. The Company intends to utilize its existing antibody manufacturing capacity to meet the clinical trial requirements for its Oncolym (R) and TNT products and to support the initial commercialization of Oncolym(R) . In order to provide additional capacity, the Company believes it can successfully negotiate an agreement with contract antibody manufacturers to have these products produced, the cost of which is estimated to be approximately one to three million dollars in start up costs and additional production costs on a "per run basis". The Company believes that it can successfully negotiate an agreement with contract radiolabeling companies to provide radiolabeling services to meet commercial demands. Such a contract would, however, require a substantial investment by the Company (estimated at five to nine million dollars over the next two years) for equipment and related production area enhancements required by these vendors, and for vendor services associated with technology transfer assistance, scale-up and production start-up, and for regulatory assistance. The Company anticipates that production of its products in commercial quantities will create technical and financial challenges for the Company. The Company has limited manufacturing experience, and no assurance can be given as to the Company's ability to scale-up its manufacturing operations, the suitability of the Company's present facility for clinical trial production or commercial production, the Company's ability to make a successful transition to commercial production and radiolabeling or the Company's ability to reach an acceptable agreement with contract manufacturers to produce and radiolabel Oncolym(R), TNT, or the Company's other product candidates, in clinical or commercial quantities. The

failure of the Company to scale-up its manufacturing and radiolabeling for clinical trial or commercial production or to obtain contract manufacturers, could adversely affect the Company's business, financial position and results of operations.

SHARES ELIGIBLE FOR FUTURE SALE; DILUTION. The decline in the market price of the Company's Common Stock has led to substantial dilution to holders of Common Stock. Under the terms of the Company's agreement with the holders of the Company's 5% Adjustable Convertible Class C Preferred Stock (the "Class C Stock"), the shares of the Class C Stock are convertible into shares of the Company's Common Stock at the lower of a conversion cap of \$0.5958 (the "Conversion Cap") or a conversion price equal to the average of the lowest trading price of the Company's Common Stock for the five consecutive trading days ending with the trading date prior to the date of conversion reduced by 27 percent. The Company's agreement with the holders of the Class C Stock also provides that upon conversion, the holders of the Class C Stock will also receive warrants to purchase one-fourth of the number of shares of Common Stock issued upon conversion of the Class C Stock at an exercise price of \$0.6554 per share (or 110% of the Conversion Cap), which warrants will expire in April 2002 (the "Class C Warrants"). Dividends on the Class C Stock are payable quarterly in shares of Class C Stock or cash, at the option of the Company, at the rate of \$50.00 per share per annum.

From September 26, 1997 (the date the Class C Stock became convertible into Common Stock) through January 13, 1999, 13,703 shares of Class C Stock, including Class C dividend shares and additional shares of Class C Stock issued during fiscal year 1998 (as described below), were converted into 24,719,415 shares of Common Stock, resulting in substantial dilution to the common stockholders. In addition, in conjunction with the conversion of the Class C Stock, the holders were granted warrants to purchase shares of Common Stock of the Company. Class C Warrants to purchase 6,144,537 shares of common stock have been exercised on a combined cash and cashless basis through January 13, 1999, at an exercise price of \$.6554 per share, in exchange for 5,831,980 shares of Common Stock and proceeds to the Company of \$3,599,901. As of January 13, 1999, Class C Warrants to purchase 35,244 shares of Common Stock were outstanding. During fiscal year 1998, the registration statement required to be filed by the Company pursuant to the Company's agreement with the holders of the Class C Stock was not declared effective by the 180th day following the closing date of such offering, and therefore, the Company was required to issue an additional 325 shares of Class C Stock, calculated in accordance with the terms of such agreement. At January 13, 1999, 270 shares of Class C Stock remained outstanding and may be converted into shares of Common Stock at the lower of a 27% discount from the average of the lowest market trading price for the five consecutive trading days preceding the date of conversion or the Conversion Cap. Assuming the conversion of all of such remaining shares of Class C Stock at the Conversion Cap, the Company is required to issue to the holders of the Class C Stock upon conversion thereof an aggregate of approximately 453,000 shares of Common Stock and Class C Warrants to purchase an aggregate of up to approximately 113,000 shares of Common Stock at an exercise price of \$.6554 per share.

Sales, particularly short selling, of substantial amounts of shares of Common Stock in the public market have adversely affected and may continue to adversely affect the prevailing market price of the Common Stock and, depending upon the then current market price of the Common Stock, increase the risks associated with the possible conversion of the Class C Stock and the Class C Warrants. From September 26, 1997, the date on which the Class C Stock was first convertible, through March 1998, the price of the Company's Common Stock steadily declined while the average trading volume increased significantly.

Pursuant to the terms of the Equity Line Agreement (and assuming, solely for purposes of this Prospectus, a 10-day low closing bid price per share of not less than \$1.00, which allows the Company to sell the maximum number of shares of Common Stock to the Registered Stockholders for maximum proceeds of \$16,500,000), the Company may, at its option, sell to the Registered Stockholders, in addition to the Initial Shares and the Warrants, up to 20,625,000 shares of Common Stock (the "Equity Line Investor Shares") and warrants to purchase up to an additional 2,062,500 shares of Common Stock (the "Equity Line Investor Warrants"). The price at which the Equity Line Investor Shares will be issued and sold by the Company to the Registered Stockholders

will be equal to (i) 82.5% of the lowest closing bid price during the ten trading days (the "10 day low closing bid price") immediately preceding the date on which such shares are sold to the Registered Stockholders or (ii) if 82.5% of such 10 day low closing bid price results in a discount of less than twenty cents (\$0.20) per share from such 10 day low closing bid price, such 10 day low closing bid price minus twenty cents (\$0.20). In addition, the Company may be obligated to issue to the Registered Stockholders an additional 954,545 shares of Common Stock upon adjustment of the purchase price of the Shares already issued to the Registered Stockholders on the three-month and six-month anniversary of the date of this Prospectus (the "Adjustment Shares"). Pursuant to the terms of a Placement Agent Agreement dated as of June 16, 1998 between the Company and Swartz Investments, LLC (the "Placement Agent Agreement"), the Company may also be obligated to issue up to 2,157,955 shares of Common Stock (the "Equity Line Placement Shares") and warrants to purchase up to an additional 206,250 shares of Common Stock (the "Equity Line Placement Warrants"). The Company will not receive any proceeds from the exercise of the Equity Line Investor Warrants, the Equity Line Placement Warrants or the Warrants, which may only be exercised pursuant to a cashless exercise by the Registered Stockholders. See "The Equity Line Agreement," "Use of Proceeds" and "Plan of Distribution."

In addition to the Class C Warrants, the Warrants and the Equity Line Placement Warrants, at January 13, 1999, the Company had outstanding warrants and options to employees, directors, consultants and other parties to issue approximately 8,569,000 shares of Common Stock at an average price of \$1.16 per share.

The sale and issuance of the Equity Line Investor Shares may result in substantial dilution to the existing holders of Common Stock. The issuance of the Equity Line Investor Shares, the Adjustment Shares and the Equity Line Placement Shares and the issuance of shares of Common Stock issuable upon conversion of the remaining Class C Stock and upon exercise of the remaining Class C Warrants, the Equity Line Investor Warrants, the Equity Line Placement Warrants and such other outstanding warrants and options, as well as subsequent sales of the Shares, the Equity Line Investor Shares, the Adjustment Shares, the Equity Line Placement Shares and such shares of Common Stock in the open market, could adversely affect the market price of the Company's Common Stock and impair the Company's ability to raise additional capital.

STOCK PRICE FLUCTUATIONS AND LIMITED TRADING VOLUME. The market price of the Company's Common Stock, and the market prices of securities of companies in the biotechnology industry generally, have been highly volatile. Also, at times there is a limited trading volume in the Company's Common Stock. Announcements of technological innovations or new commercial products by the Company or its competitors, developments or disputes concerning patent or proprietary rights, publicity regarding actual or potential medical results relating to products under development by the Company or its competitors, regulatory developments in both the United States and foreign countries, public concern as to the safety of biotechnology products and economic and other external factors, as well as period-to-period fluctuations in financial results may have a significant impact on the market price of the Company's Common Stock. The volatility in the stock price and the potential additional new shares of common stock that may be issued on the exercise of warrants and options and the historical limited trading volume are significant risks investors should consider.

MAINTENANCE CRITERIA FOR NASDAQ SMALLCAP MARKET, RISKS OF LOW-PRICED SECURITIES. The Company's Common Stock is presently traded on the Nasdaq SmallCap Market. To maintain inclusion on the Nasdaq SmallCap Market, the Company's Common Stock must continue to be registered under Section 12(g) of the Exchange Act, and the Company must continue to have either net tangible assets of at least \$2,000,000, market capitalization of at least \$35,000,000, or net income (in either its latest fiscal year or in two of its last three fiscal years) of at least \$500,000. In addition, the Company must meet other requirements, including, but not limited to, having a public float of at least 500,000 shares and \$1,000,000, a minimum closing bid price of \$1.00 per share of Common Stock (without falling below this minimum bid price for a period of 30 consecutive business days), at least two market makers and at least 300 stockholders, each holding at least 100 shares of Common Stock. For the period

of January 29, 1998 through May 4, 1998, the Company failed to maintain a \$1.00 minimum closing bid price. From May 5, 1998, through September 2, 1998, the Company met this requirement. However, at various times since September 2, 1998, the Company has failed to maintain a \$1.00 minimum closing bid price and currently expects the closing bid price of the Common Stock to fall below the \$1.00 minimum bid requirement from time to time in the future. If the Company fails to meet the minimum closing bid price of \$1.00 for a period of 30 consecutive business days, it will be notified by the Nasdaq and will then have a period of 90 calendar days from such notification to achieve compliance with the applicable standard by meeting the minimum closing bid price requirement for at least 10 consecutive business days during such 90 day period. There can be no assurance that the Company will be able to maintain these requirements in the future. If the Company fails to meet the Nasdaq SmallCap Market listing requirements, the market value of the Common Stock could decline and holders of the Company's Common Stock would likely find it more difficult to dispose of and to obtain accurate quotations as to the market value of the Common Stock. In addition, if the minimum closing bid price of the Common Stock is not at least \$1.00 per share for 10 consecutive business days before a call by the Company under the Equity Line Agreement or if the Company's Common Stock ceases to be included on the Nasdaq SmallCap Market, the Company would have limited or no access to funds under the Equity Line Agreement.

If the Company's Common Stock ceases to be included on the Nasdaq SmallCap Market, the Company's Common Stock could become subject to rules adopted by the Commission regulating broker-dealer practices in connection with transactions in "penny stocks." Penny stocks generally are equity securities with a price per share of less than \$5.00 (other than securities registered on certain national securities exchanges or quoted on Nasdaq, provided that current price and volume information with respect to transactions in these securities is provided). The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document in a form prepared by the Commission which provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its sales person in the transaction and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation. In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from these rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for a stock that becomes subject to these penny stock rules. If the Company's Common Stock becomes subject to the penny stock rules, investors may be unable to readily sell their shares of Common Stock.

INTENSE COMPETITION. The biotechnology industry is intensely competitive and changing rapidly. Virtually all of the Company's existing competitors have greater financial resources, larger technical staffs, and larger research budgets than the Company and greater experience in developing products and running clinical trials. Two of the Company's competitors, Idec Pharmaceuticals Corporation ("Idec") and Coulter Pharmaceuticals, Inc. ("Coulter"), each has a lymphoma antibody that may compete with the Company's Oncolym(R) product. Idec is currently marketing its lymphoma product for low grade non-Hodgkins Lymphoma and the Company believes that Coulter will be marketing its respective lymphoma product prior to the time the Oncolym(R) product will be submitted to the FDA for marketing approval. Coulter has also announced that it intends to seek to conduct clinical trials of its antibody treatment for intermediate and/or high grade non-Hodgkins lymphomas. There are several companies in preclinical studies with angiogenesis technologies which may compete with the Company's VTA technology. In addition, there may be other companies which are currently developing competitive technologies and products or which may in the future develop technologies and products which are comparable or superior to the Company's technologies and products. Some or all of these companies may also have greater financial and technical resources than the Company. Accordingly,

there can be no assurance that the Company will be able to compete successfully or that competition will not adversely affect the Company's business, financial position and results of operations. There can be no assurance that the Company's existing and future competitors will not be able to raise substantial funds and to employ these funds and their other resources to develop products which compete with the Company's other product candidates.

UNCERTAINTIES ASSOCIATED WITH CLINICAL TRIALS. The Company has limited experience in conducting clinical trials. The rate of completion of the Company's clinical trials will depend on, among other factors, the rate of patient enrollment. Patient enrollment is a function of many factors, including the nature of the Company's clinical trial protocols, existence of competing protocols, size of the patient population, proximity of patients to clinical sites and eligibility criteria for the study. Delays in patient enrollment will result in increased costs and delays, which could adversely effect the Company. There is no assurance that patients enrolled in the Company's clinical trials will respond to the Company's product candidates. Setbacks are to be expected in conducting human clinical trials. Failure to comply with FDA regulations applicable to this testing can result in delay, suspension or cancellation of the testing, or refusal by the FDA to accept the results of the testing. In addition, the FDA may suspend clinical trials at any time if it concludes that the subjects or patients participating in such trials are being exposed to unacceptable health risks. Further, there can be no assurance that human clinical testing will show any current or future product candidate to be safe and effective or that data derived from the testing will be suitable for submission to the FDA. Any suspension or delay of any of the clinical trials could adversely effect the Company's business, financial condition and results of operations.

UNCERTAINTY OF MARKET ACCEPTANCE. Even if the Company's products are approved for marketing by the FDA and other regulatory authorities, there can be no assurance that the Company's products will be commercially successful. If the Company's two products in clinical trials, Oncolym(R) and TNT, are approved, they would represent a departure from more commonly used methods for cancer treatment. Accordingly, Oncolym(R) and TNT may experience under-utilization by oncologists and hematologists who are unfamiliar with the application of Oncolym(R) and TNT in the treatment of cancer. As with any new drug, doctors may be inclined to continue to treat patients with conventional therapies, in most cases chemotherapy, rather than new alternative therapies. The Company or its marketing partner will be required to implement an aggressive education and promotion plan with doctors in order to gain market recognition, understanding and acceptance of the Company's products. Market acceptance also could be affected by the availability of third party reimbursement. Failure of Oncolym(R) and TNT to achieve market acceptance would adversely affect the Company's business, financial condition and results of operations.

SOURCE OF RADIOLABELING SERVICES. The Company currently procures its radiolabeling services pursuant to negotiated contracts with one domestic entity and one European entity. There can be no assurance that these suppliers will be able to qualify their facilities, label and supply antibody in a timely manner, if at all, or that governmental clearances will be provided in a timely manner, if at all, and that clinical trials will not be delayed or disrupted. Prior to commercial distribution, the Company will be required to identify and contract with a commercial radiolabeling company for commercial services. The Company is presently in discussions with a few companies to provide commercial radiolabeling services. A commercial radiolabeling service agreement will require the investment of substantial funds by the Company. See "Risk Factors-Commercial Production." The Company expects to rely on its current suppliers for all or a significant portion of its requirements for the Oncolym(R) and TNT antibody products to be used in clinical trials for the immediate future. Radiolabeled antibody cannot be stockpiled against future shortages due to the eight-day half-life of the I131 radioisotope. Accordingly, any change in the Company's existing or future contractual relationships with, or an interruption in supply from, its third-party suppliers could adversely affect the Company's ability to complete its ongoing clinical trials and to market the Oncolym(R) and TNT antibodies, if approved. Any such change or interruption would adversely affect the Company's business, financial condition and results of operations.

HAZARDOUS AND RADIOACTIVE MATERIALS. The manufacturing and use of the Company's Oncolym(R) and TNT require the handling and disposal of the radioactive isotope I131. The Company is relying on its current contract manufacturers to radiolabel its antibodies with I131 and to comply with various

local, state and or national and international regulations regarding the handling and use of radioactive materials. Violation of these local, state, national or international regulations by these radiolabeling companies or a clinical trial site could significantly delay completion of the trials. Violations of safety regulations could occur with these manufacturers, so there is a risk of accidental contamination or injury. The Company could be held liable for any damages that result from an accident, contamination or injury caused by the handling and disposal of these materials, as well as for unexpected remedial costs and penalties that may result from any violation of applicable regulations, which could adversely effect the Company's business, financial condition and results of operations. In addition, the Company may incur substantial costs to comply with environmental regulations. In the event of any noncompliance or accident, the supply of Oncolym(R) and TNT for use in clinical trials or commercially could be interrupted, which could adversely affect the Company's business, financial condition and results of operations.

DEPENDENCE ON THIRD PARTIES FOR COMMERCIALIZATION. The Company intends to sell its products in the United States and internationally in collaboration with marketing partners. At the present time, the Company does not have a sales force to market Oncolym(R) or TNT. If and when the FDA approves Oncolym(R) or TNT, the marketing of Oncolym(R) and TNT will be contingent upon the Company either licensing or entering into a marketing agreement with a large company or rely upon it recruiting, developing, training and deploying its own sales force. The Company does not presently possess the resources or experience necessary to market Oncolym(R), TNT or its other product candidates. Other than an agreement with BTM, the Company presently has no agreements for the licensing or marketing of its product candidates, and there can be no assurance that the Company will be able to enter into any such agreements in a timely manner or on commercially favorable terms, if at all. Development of an effective sales force requires significant financial resources, time and expertise. There can be no assurance that the Company will be able to obtain the financing necessary or to establish such a sales force in a timely or cost effective manner, if at all, or that such a sales force will be capable of generating demand for the Company's product candidates.

PATENTS AND PROPRIETARY RIGHTS. The Company's success depends, in large part, on its ability to obtain or maintain a proprietary position in its products through patents, trade secrets and orphan drug designations. The Company has several United States patents or United States patent applications and numerous corresponding foreign patent applications, and has licenses to patents or patent applications owned by other entities. No assurance can be given, however, that the patent applications of the Company or the Company's licensors will be issued or that any issued patents will provide competitive advantages for the Company's products or will not be successfully challenged or circumvented by its competitors. The patent position worldwide of biotechnology companies in relation to proprietary products is highly uncertain and involves complex legal and factual questions. Moreover, any patents issued to the Company or the Company's licensors may be infringed by others or may not be enforceable against others. In addition, there can be no assurance that the patents, if issued, would be held valid or enforceable by a court of competent jurisdiction. Enforcement of the Company's patents may require substantial financial and human resources. The Company may have to participate in interference proceedings if declared by the United States Patent and Trademark Office to determine priority of inventions, which typically take several years to resolve and could result in substantial costs to the Company.

A substantial number of patents have already been issued to other biotechnology and biopharmaceutical companies. Particularly in the monoclonal antibody and angiogenesis fields, competitors may have filed applications for or have been issued patents and may obtain additional patents and proprietary rights relating to products or processes competitive with or similar to those of the Company. To date, no consistent policy has emerged regarding the breadth of claims allowed in biopharmaceutical patents. There can be no assurance that patents do not exist in the United States or in foreign countries or that patents will not be issued that would have an adverse effect on the Company's ability to market any product which it develops. Accordingly, the Company expects that commercializing monoclonal antibody-based products may require licensing and/or cross-licensing of patents with other companies in this field. There can be no assurance that the licenses, which might be required for the Company's processes or products, would be available, if at all, on commercially

acceptable terms. The ability to license any such patents and the likelihood of successfully contesting the scope or validity of such patents is uncertain and the costs associated therewith may be significant. If the Company is required to acquire rights to valid and enforceable patents but cannot do so at a reasonable cost, the Company's ability to manufacture its products would be adversely affected.

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

PRODUCT LIABILITY. The manufacture and sale of human therapeutic products involve an inherent risk of product liability claims. The Company has only limited product liability insurance. There can be no assurance that the Company will be able to maintain existing insurance or obtain additional product liability insurance on acceptable terms or with adequate coverage against potential liabilities. Product liability insurance is expensive, difficult to obtain and may not be available in the future on acceptable terms, if at all. An inability to obtain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims brought against the Company in excess of its insurance coverage, if any, or a product recall could adversely affect the Company's business, financial condition and results of operations.

HEALTH CARE REFORM AND THIRD-PARTY REIMBURSEMENT. Political, economic and regulatory influences are subjecting the health care industry in the United States to fundamental change. Recent initiatives to reduce the federal deficit and to reform health care delivery are increasing cost-containment efforts. The Company anticipates that Congress, state legislatures and the private sector will continue to review and assess alternative benefits, controls on health care spending through limitations on the growth of private health insurance premiums and Medicare and Medicaid spending, the creation of large insurance purchasing groups, price controls on pharmaceuticals and other fundamental changes to the health care delivery system. Any such changes could affect the Company's ultimate profitability. Legislative debate is expected to continue in the future, and market forces are expected to drive reductions of health care costs. The Company cannot predict what impact the adoption of any federal or state health care reform measures or future private sector reforms may have on its business.

The Company's ability to successfully commercialize its product candidates will depend in part on the extent to which appropriate reimbursement codes and authorized cost reimbursement levels of such products and related treatment are obtained from governmental authorities, private health insurers and other organizations, such as health maintenance organizations ("HMOs"). The Health Care Financing Administration ("HCFA"), the agency responsible for administering the Medicare program, sets requirements for coverage and reimbursement under the program, pursuant to the Medicare law. In addition, each state Medicaid program has individual requirements that affect coverage and reimbursement decisions under state Medicaid programs for certain health care providers and recipients. Private insurance companies and state Medicaid programs are influenced, however, by the HCFA requirements.

There can be no assurance that any of the Company's product candidates, once available, will be included within the then current Medicare coverage determination. In the absence of national Medicare coverage determination, local contractors that administer the Medicare program, within certain guidelines, can make their own coverage decisions. Favorable coverage determinations are made in those situations where a procedure falls within allowable Medicare benefits and a review concludes that the service is safe, effective and not experimental. Under HCFA coverage requirements, FDA approval for marketing will not necessarily lead to a favorable coverage decision. A determination will still need to be made as to whether the product is reasonable and necessary for the purpose used. In addition, HCFA has proposed adopting regulations that would add cost-effectiveness as a criterion in determining Medicare coverage. Changes in

HCFA's coverage policy, including adoption of a cost-effective criterion, could adversely affect the Company's business, financial condition and results of operations.

Third-party payers are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed health care in the United States 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 reform health care or reduce government insurance programs, may all result in lower prices for the Company's product candidates than it expects. The cost containment measures that health care payers and providers are instituting and the effect of any health care reform could adversely affect the Company's ability to operate profitably.

DEPENDENCE ON MANAGEMENT AND OTHER KEY PERSONNEL. The Company is dependent upon a limited number of key management and technical personnel. The loss of the services of one or more of these key employees could adversely affect the Company's business, financial condition and results of operations. In addition, the Company's success is dependent upon its ability to attract and retain additional highly qualified management and technical personnel. The Company faces intense competition in its recruiting activities, and there can be no assurance that the Company will be able to attract and/or retain qualified personnel.

IMPACT OF THE YEAR 2000. The Company has identified substantially all of its major hardware and software platforms in use and is continually modifying and upgrading its software and information technology ("IT") and non-IT systems. The Company has modified its current financial software to be Year 2000 ("Y2K") compliant. The Company does not believe that, with upgrades of existing software and/or conversion to new software, the Y2K issue will pose significant operational problems for its internal computer systems. The Company expects all systems to be Y2K compliant by April 30, 1999 through the use of internal and external resources. The Company has incurred insignificant costs to date associated with Y2K compliance and the Company presently believes estimated future costs will not be material. However, the systems of other companies on which the Company may rely also may not be timely converted, and failure to convert by another company could have an adverse effect on the Company's systems. The Company presently believes the Y2K problem will not pose significant operational problems and is not anticipated to have a material effect on its financial position or results of operations in any given year. However, actual results could differ materially from the Company's expectations due to unanticipated technological difficulties or project delays by the Company or its suppliers. If the Company and third parties upon which it relies are unable to address the issue in a timely manner, it could result in a material financial risk to the Company. In order to assure that this does not occur, the Company is in the process of developing a contingency plan and plans to devote all resources required to attempt to resolve any significant Y2K issues in a timely manner.

EARTHQUAKE RISKS. The Company's corporate and research facilities, where the majority of its research and development activities are conducted, are located near major earthquake faults which have experienced earthquakes in the past. The Company does not carry earthquake insurance on its facility due to its prohibitive cost and limited available coverage. In the event of a major earthquake or other disaster affecting the Company's facilities, the operations and operating results of the Company could be adversely affected.

FORWARD LOOKING STATEMENTS. Based on current expectations, this Prospectus, the Company's Annual Report on Form 10-K and its quarterly and periodic reports contain certain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. In light of the important factors that can materially affect results, including those set forth above, the inclusion of forward- looking information should not be regarded as a representation by the Company or any other person that the objectives or plans of the Company will be achieved. The Company may encounter competitive, technological, financial and business challenges making it more difficult than expected to continue to develop, market and manufacture its products; competitive conditions within the industry may change adversely; upon development of the Company's products, demand for the Company's products may weaken; the market may not accept the Company's products; the Company may be

unable to retain existing key management personnel; the Company's forecasts may not accurately anticipate market demand; and there may be other material adverse changes in the Company's operations or business. Certain important factors affecting the forward-looking statements made herein include, but are not limited to accurately forecasting capital expenditures and obtaining new sources of external financing prior to the expiration of existing support arrangements or capital. Assumptions relating to budgeting, marketing, product development and other management decisions are subjective in many respects and thus susceptible to interpretations and periodic revisions based on actual experience and business developments, the impact of which may cause the Company to alter its capital expenditure or other budgets, which may in turn affect the Company's business, financial position and results of operations.

THE EQUITY LINE AGREEMENT

On June 16, 1998, the Company entered into the Equity Line Agreement with the Registered Stockholders, pursuant to which the Company may issue and sell, from time to time, shares of its Common Stock for cash consideration up to an aggregate of \$20 million. The Company also entered into the Placement Agent Agreement with Swartz Investments, LLC, whereby the Company engaged the services of Swartz Investments, LLC as placement agent in connection with the placement of securities of the Company with the Registered Stockholders pursuant to the Equity Line Agreement.

Pursuant to the Equity Line Agreement, on or about June 16, 1998, the Company received immediate funding of \$3,500,000 in exchange for the Institutional Investor Shares and issued the Institutional Investor Warrants to the Registered Stockholders. Pursuant to the terms of the Equity Line Agreement, one-half of the number of Institutional Investor Shares is subject to adjustment on the date that is three months after the date of this Prospectus with the other half subject to adjustment six months after the date of this Prospectus (each such date, an "Adjustment Date"). At each Adjustment Date, if the 10 day low closing bid price immediately preceding such Adjustment Date (the "Adjustment Price") is less than the initial price per share paid for the shares of Common Stock purchased by the Registered Stockholders on or about June 16, 1998 (\$1.375 per Share), the Company will be obligated to issue a number of Adjustment Shares equal to the difference between the amount of shares which would have been issued if the price had been the Adjustment Price for \$1,750,000 and one-half of the amount of shares actually issued (1,272,727 shares). In addition, in December 1998, the Company issued an additional 96,055 Shares to the Registered Stockholders pursuant to a separate agreement between the Company and the Registered Stockholders (the "Additional Shares").

Pursuant to the terms of the Placement Agent Agreement, Swartz Investments, LLC is entitled to receive (i) a cash placement fee equal to seven percent (7%) of the purchase price of any and all securities placed pursuant to the Equity Line Agreement; (ii) a non-accountable expense allowance equal to one percent (1%) of the purchase price of any and all securities placed up to the aggregate purchase price of the first \$10 million of securities placed pursuant to the Equity Line Agreement; (iii) a one time non-accountable expenses allowance equal to one hundred thousand dollars for any and all securities placed in excess of the aggregate purchase price of the first \$10 million of securities placed pursuant to the Equity Line Agreement (such non-accountable expenses allowance to be paid upon placement of any securities resulting in an aggregate purchase price in excess of \$10,100,000 placed pursuant to the Equity Line Agreement); and (iv) an amount of securities equal to ten percent (10%) of all Common Stock issued pursuant to the Equity Line Agreement and an amount of securities equal to ten percent (10%) of all warrants issued pursuant to the Equity Line Agreement.

In connection with the placement of the Initial Shares and the Warrants to the Registered Stockholders, the Company has issued to Swartz Investments, LLC an aggregate of 264,151 shares of Common Stock and warrants to purchase up to 25,454 shares of Common Stock at an exercise price of \$1.375 per share. Swartz Investments, LLC has notified the Company that it will transfer all of such shares and warrants to Dunwoody Brokerage Services, Inc., a broker-dealer registered with the Commission and the National Association of Securities Dealers, Inc. with respect to which Swartz Investments, LLC is an Office of Supervisory Jurisdiction (OSJ), and will also assign all of its rights under the Placement Agent Agreement and the Registration Rights Agreement (defined below) to Dunwoody Brokerage Services, Inc.

Pursuant to the requirements of a Registration Rights Agreement dated as of June 16, 1998, between the Company, the Registered Stockholders and Swartz Investments, LLC (the "Registration Rights Agreement"), the Company has filed a registration statement, of which this Prospectus forms a part, in order to permit the Registered Stockholders to resell to the public the Initial Shares and the and any shares that they may acquire upon exercise of the Warrants. The Company has also filed a registration statement in order to permit the

Registered Stockholders to resell any other shares of Common Stock that they may acquire pursuant to the Equity Line Agreement. Commencing ten days after the date of this Prospectus and continuing until June 16, 2001, the Company may from time to time, in its sole discretion, and subject to certain restrictions and limitations set forth in the Equity Line Agreement, sell ("put") to the Registered Stockholders, no more than one time during any monthly period upon written notice given by the Company to the Registered Stockholders (the "Notice Date"), a number of shares of Common Stock equal to up to \$2,250,000 (which amount may be increased up to \$5,000,000 by mutual agreement of the parties) less the aggregate dollar amount of any shares sold to the Registered Stockholders during the three month period immediately preceding such Notice Date, divided by (i) 82.5% of the 10 day low closing bid price immediately preceding such Notice Date, or (ii) if 82.5% of such 10 day low closing bid price results in a discount of less than twenty cents (\$0.20) per share from such 10 day low closing bid price, such 10 day low closing bid price minus twenty cents (\$0.20) (the "Purchase Price"), at a purchase price equal to the Purchase Price immediately preceding the date on which such shares are sold; provided, that the number of such shares shall be limited to the same number of shares of restricted securities that such Registered Stockholders would otherwise be able to sell pursuant to Rule 144(e) promulgated under the Securities Act, and subject to a maximum dollar amount of \$16,500,000 (representing the \$20,000,000 total commitment amount less \$3,500,000 of shares of Common Stock already issued and sold by the Company to the Registered Stockholders on or about June 16, 1998). At the time of each sale of Equity Line Investor Shares, the Registered Stockholders will be issued Equity Line Investor Warrants, expiring on December 31, 2004, to purchase a number of shares of Common Stock equal to 10% of the number of Equity Line Investor Shares sold in such sale at an exercise price equal to the price per share at which the Equity Line Investor Shares were sold to the Registered Stockholders. To the extent that the Company has not fully utilized the relevant commitment amount under the Equity Line Agreement, the Company may also be obligated to issue to the Registered Stockholders on June 16 of each of the next three years warrants to purchase a number of shares of Common Stock equal to 10% of an amount equal to the difference of the relevant minimum commitment amount (\$6,666,666.66 for 1999, \$13,333,333.32 for 2000 and \$20,000,000 for 2001) minus the aggregate amount of Common Stock sold to the Registered Stockholders during all years preceding such date, divided by the 10 day low closing bid price of the Common Stock immediately preceding such date, at an exercise price equal to the 10 day low closing bid price of the Common Stock immediately preceding such date (the "Equity Line Anniversary Warrants").

The Company's ability to put shares of its Common Stock, and the Registered Stockholders' obligations to purchase the Shares, is conditioned upon the satisfaction of certain conditions and subject to certain limitations. These conditions and limitations include: (i) the registration statement of which this Prospectus forms a part shall have been declared effective by the Commission, (ii) the representations and warranties of the Company set forth in the Equity Line Agreement must be true and correct in all material respects as of the date of each put, (iii) the Company shall have performed and complied with all obligations under the Equity Line Agreement, the Registration Rights Agreement and the Warrants required to be performed as of the date of each put, (iv) no statute, rule, regulation, executive order, decree, ruling or injunction shall be in effect which prohibits or directly and adversely affects any of the transactions contemplated by the Equity Line Agreement, (v) at the time of a put, there shall have been no material adverse change in the Company's business prospects or financial condition, except as disclosed in the Company's most recent periodic reports filed since June 16, 1998, with the Commission pursuant to the Exchange Act, (vi) the Company's Common Stock shall not have been delisted from the Nasdaq SmallCap Market nor suspended from trading, (vii) the closing bid price of the Common Stock on any trading during the ten days preceding the date of the put cannot be less than or equal to \$0.50, and (viii) if the closing bid price of the Common Stock on any trading day during the ten trading days preceding the date of the put is less than \$1.00 but greater than \$0.50, the Company may only exercise the put for an amount of shares not greater than 15% of the amount that would otherwise be available to the Company pursuant to the terms of the Equity Line Agreement.

The Registered Stockholders have agreed that they will not create or increase a net short position with respect to the Common Stock during the ten trading days prior to any put date or during the thirty calendar days prior to the date that is three months after the date of this Prospectus and the thirty calendar days prior to the date that is six months after the date of this Prospectus. The Registered Stockholders have further agreed that they will not engage in any trading practice or activity for the purpose of manipulating the price of the Common Stock or otherwise engage in any trading practice or activity that violates the rules and regulations of the Commission.

USE OF PROCEEDS

The proceeds from the sale of the Shares will be received directly by the Registered Stockholders. The Company will not receive any proceeds from the sale of the Shares offered hereby. The Company will not receive any proceeds from the exercise of the Warrants, which may only be exercised pursuant to a cashless exercise by the Registered Stockholders.

RECENT DEVELOPMENTS

On July 17, 1998, the Company notified the holders of the Class C Stock of its intent to redeem the Class C Warrants issued in conjunction with the Class C Stock offering in April 1997, if such Class C Warrants were not exercised on or before August 6, 1998. As a result, the holders of the Class C Warrants elected to exercise 4,076,157 of the Class C Warrants on a combined cash and cashless basis and the Company issued to such holders an aggregate of 3,763,600 shares of its Common Stock for which it received an aggregate of \$2,244,264. At January 13, 1999, 270 shares of Class C Stock remained outstanding and, assuming the conversion of all of such remaining shares of Class C Stock at the Conversion Cap, the Company is required to issue to the holders of the Class C Stock upon conversion thereof an aggregate of approximately 453,000 shares of Common Stock and Class C Warrants to purchase an aggregate of up to approximately 113,000 shares of Common Stock at a purchase price of \$.6554 per share.

In July 1998, the Company renegotiated its short-term note payable for \$2,385,000 with a construction contractor to provide for an extension of time until July 29, 1998, to repay such note, and issued to the contractor a warrant, expiring on March 31, 2001, to purchase up to 240,000 shares of Common Stock at an exercise price of \$.5625 per share. On July 29, 1998, the Company repaid \$500,000 of the note to the contractor and renegotiated the payment terms of the note to provide for an extension of time until August 17, 1998 to repay the remaining balance of the note. In connection with this subsequent extension agreement, the Company issued to the contractor a warrant, expiring in July 2001, to purchase up to 95,000 shares of the Company's common stock at an exercise price of \$1.37 per share and also issued an aggregate of 147,235 shares of Common Stock in lieu of repayment of accrued and unpaid interest on such note. On August 17, 1998, the Company utilized funds received from the exercise of Class C Warrants during July 1998 and August 1998 to repay the remaining balance of \$1,885,000 of such note in full, plus related legal fees in the amount of \$5,000.

On February 29, 1996, the Company entered into a Distribution Agreement with BTD. Under the terms of the agreement, BTD was granted the right to market and distribute LYM products in Europe and other designated foreign countries in exchange for a nonrefundable fee of \$3,000,000 and the performance of certain duties by BTD as outlined in the agreement. The agreement also provides that the Company will retain all manufacturing rights to the LYM antibodies and will supply the LYM antibodies to BTD at preset prices. In conjunction with the agreement, the Company was granted an option to repurchase the marketing rights to the LYM antibodies through August 29, 1998, at its sole discretion. Although the Company did not exercise its rights under the repurchase option as of such date, BTD subsequently agreed to extend the repurchase option through August 30, 1999 (effective as of October 23, 1998) in consideration of cash payments to BTD aggregating \$431,250 (with \$93,750 payable immediately and \$112,500 payable each

quarter thereafter, beginning December 1, 1998) and the issuance by the Company to BTD of options to purchase 125,000 shares of Common Stock at an exercise price of \$3 per share with a three-year term. The repurchase option may be canceled by the Company upon 90 days' notice to BTD. The repurchase price under the repurchase option, if exercised by the Company, would include a cash payment of \$4,500,000, the issuance of an option to purchase 1,000,000 shares of Common Stock at an exercise price of \$5 per share with a five-year term and royalties equal to 5% of gross sales of LYM products in designated geographic areas. Alternatively, if the repurchase option is not exercised by the Company and BTD elects to market LYM products itself and requests clinical data from the Company, BTD will make a cash payment of \$1,000,000 to the Company and will pay royalties to the Company equal to 5% of gross sales on LYM products in designated geographic areas.

On September 8, 1998, Edward J. Legere II resigned from the Board of Directors and the remaining directors appointed Mr. William C. Shepherd to fill the vacancy on the Board of Directors caused by Mr. Legere's resignation. Mr. Legere's resignation was not due to any disagreement with the Company on any matter relating to the Company's operations, policies or practices.

On October 4, 1998, William Moding resigned from his position as Vice President, Operations and Administration to pursue other personal and business interests. In connection with Mr. Moding's resignation, the Company entered into a revised severance agreement with Mr. Moding pursuant to which Mr. Moding will provide consulting services to the Company as an independent consultant for a fixed and non-cancelable period of sixteen months continuing until January 31, 2000, in consideration of the payment to Mr. Moding of a monthly consulting fee of \$12,500 and the issuance of an aggregate of 320,000 shares of Common Stock during such period for the exercise of outstanding stock options, without the requirement of any payment by Mr. Moding of the exercise price (\$.60 per share) therefor. In addition, the Company has agreed to make tax payments totalling \$65,280 to federal and state taxing authorities on behalf of Mr. Moding to offset the income to Mr. Moding resulting from the non-payment of the exercise price for such options and to pay Mr. Moding all accrued and unused vacation pay and accrued back pay relating to salary deferral for the period from March 21, 1998 through October 3, 1998. Pursuant to the revised agreement, Mr. Moding will be required to repay the Company the entire outstanding principal balance and accrued interest thereon under two stock option exercise notes (with a current combined principal amount of \$179,379.77) by no later than January 31, 2000 and to execute a standard form security agreement relating to the stock option exercise notes to pledge Mr. Moding's interest in the stock options and his personal assets as backup collateral to secure his obligations under the two stock option exercise notes.

On October 13, 1998, at the Annual Meeting of Stockholders, the stockholders of the Company approved the issuance of shares of Common Stock which could be acquired by the Registered Stockholders pursuant to the Equity Line Agreement in excess of 20% of the issued and outstanding shares of Common Stock (as required pursuant to the Rules of the National Association of Securities Dealers, Inc.), which approval was a condition to the Company's ability to put shares of its Common Stock to the Registered Stockholders and to the Registered Stockholders' obligations to purchase additional shares of Common Stock pursuant to the Equity Line Agreement.

On November 2, 1998, Elizabeth Gorbett-Frost resigned from her position as Chief Financial Officer of the Company to pursue other personal and business interests. However, Ms. Gorbett-Frost agreed to remain in her position as Corporate Secretary of the Company until November 30, 1998. In connection with Ms. Gorbett-Frost's resignation, the Company entered into a severance agreement with Ms. Gorbett-Frost pursuant to which she will remain as a non-officer employee of the Company through April 30, 1999 in consideration of the payment to Ms. Gorbett-Frost of a bi-weekly salary in the amount of \$6,731, with the first such payment to be made on December 11, 1998 and a final payment of \$5,609 to be made on April 30, 1999. Ms. Gorbett-Frost will also be entitled to exercise the outstanding options she presently holds to acquire up to 113,334 shares of Common Stock pursuant to the Company's 1996 Stock Incentive Plan until 90 days after April 30, 1999, at the stated exercise price of \$.60 per share. In addition, Ms. Gorbett-Frost received 30,000 unrestricted shares of Common Stock

upon the accomplishment of certain specified tasks which were substantially completed by November 30, 1998 (including 5,000 shares of Common Stock upon substantial completion of the registration statement of which this Prospectus constitutes a part).

On November 2, 1998, Steven C. Burke was appointed to the position of Chief Financial Officer by the Board of Directors of the Company.

In December 1998, the Company consummated the sale/leaseback of its two corporate facilities in Tustin, California with an unrelated entity. The sale/leaseback transaction provides for the leaseback by the Company of the facilities for a twelve-year period with two five-year options to renew. The net cash received by the Company, reduced by the amounts required to satisfy existing mortgages, expenses of the sale, lease deposits, prorated rent and increased borrowing related to the sale, amounted to approximately \$1.9 million.

REGISTERED STOCKHOLDERS

The following table sets forth certain information as of January 13, 1999, with respect to each Registered Stockholder for whom the Company is registering securities for resale to the public. The Company will not receive any of the proceeds from the sale of the Shares by the Registered Stockholders.

NAME OF REGISTERED STOCKHOLDER	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(1)		MAXIMUM NUMBER OF SHARES TO BE SOLD PURSUANT TO THIS PROSPECTUS	SHARES BENEFICIALLY OWNED AFTER OFFERING(2)	
	NUMBER	PERCENT		NUMBER	PERCENT
Resonance Limited(3)..... c/o Isac Securities 310 Madison Avenue Suite 503 New York, NY 10017	1,197,961	1.8%	579,211	618,750	0.9%
The Tail Wind Fund, Ltd. (4) Windermere House 404 East Bay Street P.O. Box SS-5539 Nassau, Bahamas	4,791,843	6.8%	2,316,843	2,475,000	3.5%

(1) Except as otherwise indicated below, beneficial ownership for purposes of this table is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table above have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them. Includes (solely for purposes of this Prospectus) up to 3,093,750 shares of Common Stock that may be acquired by the Registered Stockholders pursuant to the Equity Line Agreement (including up to 281,250 shares of Common Stock issuable upon the exercise of warrants that may be issued to the Registered Stockholders) within the 60-day period ending on March 13, 1999 (assuming a 10 day low closing bid price of not less than \$1.00 per share, which allows the Company to sell the maximum number of Equity Line Shares to the Registered Stockholders under the terms of the Equity Line Agreement), which shares would not be deemed beneficially owned within the meaning of Sections 13(d) and 13(g) of the Exchange Act prior to their acquisition by the Registered Stockholders. The total number of shares of Common

Stock the Registered Stockholders may receive under the Equity Line Agreement (including shares of Common Stock issuable upon the exercise of warrants that may be issued to the Registered Stockholders) is 23,642,045 shares (assuming a 10 day low closing bid price of not less than \$1.00 per share, which allows the Company to sell the maximum number of Equity Line Shares to the Registered Stockholders under the terms of the Equity Line Agreement). See "The Equity Line Agreement." Based on an aggregate of 67,676,966 shares of Common Stock issued and outstanding as of January 13, 1999.

(2) Assumes that all of the Shares are sold pursuant to this Prospectus. Includes (solely for purposes of this Prospectus) up to 3,093,750 shares of Common Stock that may be acquired by the Registered Stockholders pursuant to the Equity Line Agreement (including up to 281,250 shares of Common Stock issuable upon the exercise of warrants that may be issued to the Registered Stockholders) within the 60-day period ending on March 13, 1999 (assuming a 10 day low closing bid price of not less than \$1.00 per share, which allows the Company to sell the maximum number of Equity Line Shares to the Registered Stockholders under the terms of the Equity Line Agreement), which shares would not be deemed beneficially owned within the meaning of Sections 13(d) and 13(g) of the Exchange Act prior to their acquisition by the Registered Stockholders. See "The Equity Line Agreement."

(3) As of the date of this Prospectus, this Registered Stockholder owns 579,211 shares of Common Stock of the Company, including 50,909 shares of Common Stock issuable upon exercise of outstanding warrants which are currently exercisable, which represents less than 1% of the issued outstanding Common Stock of the Company as of January 13, 1999. Also includes (solely for purposes of this Prospectus) up to an additional 618,750 shares of Common Stock that may be acquired by this Registered Stockholder pursuant to the Equity Line Agreement (including up to 56,250 shares of Common Stock issuable upon the exercise of warrants that may be issued to this Registered Stockholder) within the 60-day period ending on March 13, 1999 (assuming a 10 day low closing bid price of not less than \$1.00 per share, which allows the Company to sell the maximum number of Equity Line Shares to the Registered Stockholders under the terms of the Equity Line Agreement), which shares would not be deemed beneficially owned within the meaning of Sections 13(d) and 13(g) of the Exchange Act prior to their acquisition by this Registered Stockholder. See "The Equity Line Agreement."

(4) As of the date of this Prospectus, this Registered Stockholder owns 2,316,843 shares of Common Stock of the Company, including 203,636 shares of Common Stock issuable upon exercise of outstanding warrants which are currently exercisable, which represents approximately 3.4% of the issued and outstanding Common Stock of the Company as of January 13, 1999. Also includes (solely for purposes of this Prospectus) up to an additional 2,475,000 shares of Common Stock that may be acquired by this Registered Stockholder pursuant to the Equity Line Agreement (including up to 225,000 shares of Common Stock issuable upon the exercise of warrants that may be issued to this Registered Stockholder) within the 60-day period ending on March 13, 1999 (assuming a 10 day low closing bid price of not less than \$1.00 per share, which allows the Company to sell the maximum number of Equity Line Shares to the Registered Stockholders under the terms of the Equity Line Agreement), which shares would not be deemed beneficially owned within the meaning of Sections 13(d) and 13(g) of the Exchange Act prior to their acquisition by this Registered Stockholder. See "The Equity Line Agreement."

None of the Registered Stockholders have had any material relationship with the Company or any of its affiliates within the past three years other than as a result of the ownership of securities of the Company or as a result of the negotiation and the execution of the Equity Line Agreement. The natural person(s) controlling The Tail Wind Fund, Ltd. is David Crook. The natural person controlling Resonance Limited is Moishe Mandel.

The Shares offered hereby by the Registered Stockholders were acquired pursuant to the Equity Line Agreement between the Company and the Registered Stockholders or upon exercise of the Warrants. Under the Equity Line Agreement,

the Company agreed to register the Shares for resale by the Registered Stockholders to permit their resale by the Registered Stockholders from time to time to the public without restriction. The Company will prepare and file such amendments and supplements to the registration statement as may be necessary in accordance with the rules and regulations of the Securities Act to keep it effective until the earlier to occur of (i) the date as of which all Shares may be resold in a public transaction without volume limitations or other material restrictions without registration under the Securities Act, including without limitation, pursuant to Rule 144 under the Securities Act or (ii) the date as of which all Shares offered hereby have been resold.

The Company has agreed to pay the expenses (other than broker discounts and commissions, if any) in connection with this Prospectus.

PLAN OF DISTRIBUTION

The Company has been advised by the Registered Stockholders that all or a portion of the Shares offered by this Prospectus may be offered for sale, from time to time, by the Registered Stockholders in one or more private or negotiated transactions, in open market transactions on the Nasdaq SmallCap Market, in settlement of short sale transactions, in settlement of option transactions, or otherwise, or a combination of these methods, at prices and terms then obtainable, at fixed prices, at prices then prevailing at the time of sale, at prices related to such prevailing prices, or at negotiated prices or otherwise. The Registered Stockholders may effect these transactions by selling the Shares directly to one or more purchasers or to or through broker-dealers or agents including: (a) in a block trade in which the broker or dealer so engaged will attempt to sell the shares of Common Stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) in purchases by a broker or dealer and resale by such broker or dealer as a principal for its account pursuant to this Prospectus; (c) in ordinary brokerage transactions and (d) in transactions in which the broker solicits purchasers. The compensation to a particular underwriter, broker-dealer or agent may be in excess of customary commissions.

To the knowledge of the Company, the Registered Stockholders have made no arrangement with any brokerage firm for the sale of the Shares. The Company has been advised by the Registered Stockholders that they presently intend to dispose of the Shares through broker-dealers in ordinary brokerage transactions at market prices prevailing at the time of the sale. However, depending on market conditions and other factors, the Registered Stockholders may also dispose of the Shares through one or more of the other methods described above. Concurrently with sales under this Prospectus, the Registered Stockholders may effect other sales of Shares under Rule 144 or other exempt resale transactions. There can be no assurance that the Registered Stockholders, or any of them, will sell any or all of the Shares offered hereunder.

The Registered Stockholders are "underwriters" within the meaning of the Securities Act, in connection with the sale of the Shares offered hereby. Any broker-dealers or agents who act in connection with the sale of the Shares may also be deemed to be underwriters. Profits on any resale of the Shares by the Registered Stockholders and any discounts, commissions or concessions received by any such broker-dealers or agents may be deemed to be underwriting discounts and commissions under the Securities Act.

Any broker-dealer participating in such transactions as agent may receive commissions from the Registered Stockholders (and, if they act as agent for the purchaser of such Shares, from such purchaser). Broker-dealers may agree with the Registered Stockholders to sell a specified number of Shares at a stipulated price per share and, to the extent such a broker-dealer is unable to do so acting as agent for the Registered Stockholder, to purchase as principal any unsold Shares at the price required to fulfill the broker-dealer commitment to the Registered Stockholder. Broker-dealers who acquire Shares as principal may thereafter resell such Shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and

through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such Shares commissions computed as described above. To the extent required under the Securities Act, a supplemental prospectus will be filed, disclosing (a) the name of any such broker-dealers; (b) the number of Shares involved; (c) the price at which such Shares are to be sold; (d) the commissions paid or discounts or concessions allowed to such broker-dealers, where applicable; (e) that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this Prospectus, as supplemented; and (f) other facts material to the transaction.

Under applicable rules and regulations under the Exchange Act, any person engaged in a distribution of the Shares may not simultaneously engage in market making activities with respect to the Shares for a period beginning when such person becomes a distribution participant and ending upon such person's completion of participation in the distribution, including stabilization activities in the Common Stock to effect covering transactions, to impose penalty bids or to effect passive marketing making bids. In addition to and without limiting the foregoing, in connection with transactions in the Shares, the Company and the Registered Stockholders may be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, Rule 10b-5 thereof and, insofar as the Company and the Registered Stockholders are distribution participants, Regulation M and Rules 100, 101, 102, 103, 104 and 105 thereof. All of the foregoing may affect the marketability of the Shares.

The Registered Stockholders have agreed that they will not create or increase a net short position with respect to the Common Stock during the ten trading days prior to any put date or during the thirty calendar days prior to the date that is three months after the date of this Prospectus and the thirty calendar days prior to the date that is six months after the date of this Prospectus. The Registered Stockholders have further agreed that they will not engage in any trading practice or activity for the purpose of manipulating the price of the Common Stock or otherwise engage in any trading practice or activity that violates the rules and regulations of the Commission.

The Registered Stockholders will pay all commissions, transfer taxes and other expenses associated with the sales of the Shares by them. The Shares offered hereby are being registered pursuant to contractual obligations of the Company, and the Company has agreed to pay the expenses of the preparation of this prospectus. The Company has also agreed to indemnify the Registered Stockholders against certain liabilities, including, without limitation, liabilities arising under the Securities Act.

The Company will not receive any proceeds from the exercise of the Warrants, which may only be exercised pursuant to a cashless exercise by the Registered Stockholders. The Company will not receive any of the proceeds from the sale of the Shares by the Registered Shareholders.

In order to comply with the securities laws of certain states, if applicable, the Shares may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the Shares may not be sold unless the Shares have been registered or qualified for sale in these states or an exemption from registration or qualification is available and complied with.

The Common Stock of the Company is currently traded on the Nasdaq SmallCap Market under the symbol "TCLN".

DESCRIPTION OF SECURITIES

As of the date of this Prospectus, the authorized capital stock of the Company consists of 120,000,000 shares of Common Stock, par value \$.001 per share, and 5,000,000 shares of Preferred Stock, par value \$.001 per share, of which 10,000 shares are designated as Series B Convertible Preferred Stock ("Series B Stock") and 17,200 shares are designated as 5% Adjustable Convertible Class C Preferred Stock ("Class C Stock"). As of January 13, 1999, there were 67,676,966 shares of Common Stock outstanding held by 5,873 stockholders of record, 270 shares of Class C Stock outstanding held by 8 holders of record and no shares of Series B Stock outstanding.

Holders of Common Stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to the holders of outstanding shares of Preferred Stock, if any, the holders of Common Stock are entitled to receive such lawful dividends as may be declared by the Board of Directors. In the event of liquidation, dissolution or winding up of the Company, and subject to the rights of the holders of outstanding shares of Preferred Stock, if any, the holders of shares of Common Stock shall be entitled to receive pro rata all of the remaining assets of the Company available for distribution to its stockholders. There are no redemption or sinking fund provisions applicable to the Common Stock. All outstanding shares of Common Stock are fully paid and nonassessable, and shares of Common Stock to be issued pursuant to this offering shall be fully paid and nonassessable.

The Warrants are exercisable at any time beginning on the date of issuance thereof and ending on December 31, 2004. The shares of Common Stock underlying the Warrants, when issued upon exercise in whole or in part, will be fully paid and nonassessable, and the Company will pay any transfer tax incurred as a result of the issuance of the Common Stock to the holder upon its exercise.

Each of the Warrants contain provisions that protect the holder against dilution by adjustment of the exercise price. Such adjustments will occur in the event, among others, of a merger, stock split or reverse stock split, stock dividend or recapitalization. The Company is not required to issue fractional shares upon the exercise of any Warrant. The holder of the Warrant will not possess any rights as a stockholder of the Company until such holder exercises the Warrant. The Warrant may be exercised upon surrender on or before the expiration date of the Warrant at the offices of the Company, with an exercise form completed and executed as indicated, accompanied by payment of the exercise price for the number of shares with respect to which the Warrant is being exercised. The exercise price is payable only pursuant to a "cashless exercise," in which that number of shares of Common Stock underlying the Warrant having a fair market value equal to the aggregate exercise price are canceled as payment of the exercise price.

For the life of each of the Warrants, the holder thereof has the opportunity to profit from a rise in the market price of the Common Stock without assuming the risk of ownership of the shares of Common Stock issuable upon the exercise of the Warrant. The Warrant holder may be expected to exercise the Warrant at a time when the Company would, in all likelihood, be able to obtain any needed capital by an offering of Common Stock on terms more favorable than those provided for by the Warrant. Furthermore, the terms on which the Company could obtain additional capital during the life of the Warrant may be adversely affected.

The Shares to which this Prospectus relates to be offered and sold from time to time by the Registered Stockholders are the Initial Shares and Shares of Common Stock issuable upon exercise of the Warrants. This Prospectus does not cover the Equity Line Investor Shares, the Adjustment Shares, the Additional Shares or the Equity Line Placement Shares or shares of Common Stock issuable upon exercise of the Equity Line Investor Warrants, the Equity Line Anniversary Warrants or the Equity Line Placement Warrants, which shares have been separately registered for resale under the Securities Act and are the subject of a separate Prospectus.

LEGAL MATTERS

The validity of the Shares offered hereby will be passed upon for the Company by Rutan & Tucker, LLP, Costa Mesa, California.

EXPERTS

The consolidated financial statements and related consolidated financial statement schedule, incorporated in this Prospectus by reference from Techniclone Corporation's Annual Report on Form 10-K for the year ended April 30, 1998, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report (which expresses an unqualified opinion and includes an explanatory paragraph regarding substantial doubt about the Company's ability to continue as a going concern), which is incorporated herein by reference, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Company's Bylaws provide that the Company will indemnify its directors and officers and may indemnify its employees and other agents to the fullest extent permitted by law. The Company believes that indemnification under its Bylaws covers at least negligence and gross negligence by indemnified parties, and permits the Company to advance litigation expenses in the case of stockholder derivative actions or other actions, against an undertaking by the indemnified party to repay such advances if it is ultimately determined that the indemnified party is not entitled to indemnification. The Company has liability insurance for its officers and directors.

In addition, the Company's Certificate of Incorporation provides that, pursuant to Delaware law, its directors shall not be liable for monetary damages for breach of the directors' fiduciary duty as a director to the Company and its stockholders. This provision in the Certificate of Incorporation does not eliminate the directors' fiduciary duty, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty to the Company for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provision also does not affect a director's responsibilities under any other law, such as the federal securities laws or state or federal environmental laws.

Provisions of the Company's Bylaws require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers (other than liabilities arising from actions not taken in good faith or in a manner the indemnitee believed to be opposed to the best interests of the Company) to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified and to obtain directors' insurance if available on reasonable terms. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Company pursuant to the foregoing provisions, the Company has been informed that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act and is therefore unenforceable. The Company believes that its Certificate of Incorporation and Bylaw provisions are necessary to attract and retain qualified persons as directors and officers.

The Company has in place a directors' and officers' liability insurance policy that, subject to the terms and conditions of the policy, insures the directors and officers of the Company against losses arising from any wrongful act (as defined by the policy) in his or her capacity as a director or officer. The policy reimburses the Company for amounts which the Company lawfully indemnifies or is required or permitted by law to indemnify its directors and officers.

