As filed with the Securities and Exchange Commission on April 22, 1999
Registration No. 33-91802

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 5
TO
FORM SB-2
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CYTOCLONAL PHARMACEUTICS INC.
(Name of Small Business Issuer in its Charter)

<TABLE>
<S> <C> <C>
DELAWARE 2834 75-2402409
(State or other jurisdiction of incorporation or organization) (Primary standard industrial classification code number) (I.R.S. employer identification number)
</TABLE>

9000 HARRY HINES BOULEVARD
SUITE 330
DALLAS, TEXAS 75235
(214) 353-2922
(Address and Telephone Number of Principal Executive Offices)

9000 HARRY HINES BOULEVARD
SUITE 330
DALLAS, TEXAS 75235
(Address of Principal Place of Business or Intended Principal Place of Business)

ARTHUR P. BOLLON, PH.D.
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
CYTOCLONAL PHARMACEUTICS INC.
9000 HARRY HINES BOULEVARD
SUITE 330
DALLAS, TEXAS 75235
(214) 353-2922
(Name, Address and Telephone Number of Agent for Service)

Copies to:

ROBERT H. COHEN, ESQ.
PHILIP MAGRI, ESQ.
MORRISON COHEN SINGER & WEINSTEIN, LLP
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NEW YORK, NEW YORK 10022
(212) 735-8600

APPROXIMATE DATE OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this form is a post-effective amendment filed pursuant to Rule

462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

PURSUANT TO RULE 416 UNDER THE SECURITIES ACT OF 1933, AS AMENDED, THERE ARE ALSO BEING REGISTERED SUCH ADDITIONAL SHARES OF COMMON STOCK AS MAY BECOME ISSUABLE PURSUANT TO ANTI-DILUTION PROVISIONS OF THE CLASS C WARRANTS AND THE CLASS D WARRANTS.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

EXPLANATORY NOTE

This Registration Statement contains two forms of Prospectus: (i) one for use in connection with the offering (the "Prospectus") by the Company of (a) the shares of Common Stock, Class D Warrants and shares of Common Stock issuable thereunder underlying the Class C Warrants and (b) Class D Warrants and shares of Common Stock issuable thereunder and (ii) one for use in connection with sales by Janssen-Meyers Associates, L.P. of Common Stock and Warrants in market-making transactions (the "Market Making Prospectus"). The Prospectus and the Market Making Prospectus are identical except for the following (i) the outside front cover page; (ii) page 54, which will contain alternate language for the "Plan of Distribution" section; and (iii) the outside back cover page. Alternate language for the Market Making Prospectus is labeled "Alternate Language for Market Making Prospectus" and follows the outside back cover page of the Prospectus.

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such State.

SUBJECT TO COMPLETION, DATED APRIL 22, 1999

CYTOCLONAL PHARMACEUTICS INC.

6,523,073 SHARES OF COMMON STOCK
2,006,073 REDEEMABLE CLASS D WARRANTS

We are hereby registering (the "Offering") a total of 6,523,073 shares ("Shares") of our common stock, par value $.01 per share ("Common Stock"), and 2,006,073 Redeemable Class D Warrants ("Class D Warrants," and together with the Shares, "Securities"). The Securities were initially included in units ("IPO Units") which we sold in our initial public offering in November 1995 ("IPO"). Each IPO Unit consisted of one share of Common Stock, one Redeemable Class C Warrant ("Class C Warrant") and one Class D Warrant. Each Class C Warrant is exercisable until November 2, 2000 ("Expiration Date") for one share of Common Stock at an exercise price of $6.50 per share, subject to adjustment in certain circumstances, and one Class D Warrant. Each Class D Warrant is exercisable until the Expiration Date for one share of Common Stock at an exercise price of $8.75 per share, subject to adjustment in certain circumstances. Included in the Securities sold in this Offering are (i) 2,006,073 shares of Common Stock issuable upon the exercise of the Class C Warrants, (ii) 2,006,073 Class D Warrants issuable upon the exercise of the Class C Warrants (iii) 2,006,073 shares of Common Stock issuable upon the exercise of such Class D Warrants and (iv) 2,510,927 shares of Common Stock issuable upon the exercise of the Class D Warrants. Since November 2, 1996, we have had the right to redeem the Class C Warrants and the Class D Warrants (collectively, the "Warrants") at a redemption price of $.05 per Warrant, upon at least 30 days' prior written notice if the average closing bid price of our Common Stock, as reported by the National Association of Securities Dealers Automated Quotation System ("Nasdaq") (or the last sale prices if listed on the Nasdaq National Market or a securities exchange), exceeds $9.10 per share for the Class C Warrants, subject to adjustment, or $12.25 per share for the Class D Warrants, subject to adjustment, for 30 consecutive business days ending within 15 business days of the date on which notice of redemption is given. See "Description of Securities-Class C Warrants and Class D Warrants."

We have agreed to pay a solicitation fee (the "Solicitation Fee") to Janssen-Meyers Associates, L.P. ("JMA") equal to 5% of the aggregate exercise price of the Warrants. The exercise prices and other terms of the Warrants were arbitrarily determined by negotiation between us and the underwriters of the IPO, of which JMA was one of the syndicate managers (collectively, the "Underwriters"), and are not necessarily related to our assets, book value or financial condition, or to any other recognized criteria of value. See "Risk Factors -- Arbitrary Determination of Offering Price." Our Common Stock is quoted on the Nasdaq SmallCap Market System ("Nasdaq-SCM") under the symbol, "CYPH". Our Class C Warrants are quoted on Nasdaq-SCM under the symbol, "CYPHW." Our Class D Warrants are quoted on Nasdaq-SCM under the symbol, "CYPHZ." However, there can be no assurance that an active trading market in the Securities will be sustained. See "Risk Factors-Possible Delisting of Securities from the Nasdaq Stock Market."

SEE "RISK FACTORS" BEGINNING ON PAGE 7 OF THIS PROSPECTUS AND "DILUTION."

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is April ___, 1999.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary is not complete and may not contain all of the information that you should consider before investing in the Securities. You should read the entire prospectus carefully. Unless we otherwise say so, when we discuss outstanding securities of the Company, we exclude all of the shares of Common Stock issuable upon the exercise of the Company's currently outstanding warrants and options and the conversion of the Company's convertible securities.

CYTOCLONAL PHARMACEUTICS INC.

We are a biopharmaceutical company located in Dallas, Texas. Our goal is to develop products to identify, treat and prevent cancer and other diseases. We were formed in September 1991 and since that date, we have devoted our resources solely to research and development activities relating to several products which are at various developmental stages. We have several license agreements with various biopharmaceutical companies and research institutions which own approved and pending patents covering certain drugs and therapeutic technologies.

STRATEGY

Through our research and development efforts and agreements with other research institutions and biotechnology companies, we have acquired and developed rights to certain technology. At the present time, we are focusing our attention and resources on our collaboration agreement with Bristol-Myers Squibb Company, Inc. ("Bristol-Myers Squibb") for Paclitaxel production (the "BMS License Agreement"). Paclitaxel is a drug which has proven to be effective in treating refractory ovarian, breast and non-small cell lung cancer and Kaposi's Sarcoma. In addition, Paclitaxel has shown potential in treating other cancer indications in preliminary clinical trials. Presently, Paclitaxel is made from the inner bark and needles of the slow-growing Pacific yew tree. Our scientists are working in cooperation with Bristol-Myers Squibb and the inventors of the fungal Paclitaxel technology to develop a system for manufacturing Paclitaxel in commercial quantities and at lower costs compared to currently available production methods (the Company's "Paclitaxel Fermentation Production System"). We are also focusing on possible Paclitaxel treatment of Polycystic Kidney Disease, Quantum Core Technology-for mechanism-based drug design, our gene discovery program for the early diagnosis and treatment of lung cancer, vaccine program, and antiestrogen peptide for breast cancer. Other programs, which involve potential anti-leukemia drugs and drugs called "anti-sense therapeutics," are being pursued at modest levels, and may help us develop future products or alternatives to our main programs if unforeseen problems develop. "Anti-sense therapeutics" are drugs designed to essentially "turn off" genes involved in different diseases and to prevent such genes from growing or duplicating. See "Risk Factors-Our Dependence Upon Agreements and Licenses with Other Companies and Institutions; -Our Obligations to Pay Royalty Fees and the Possibility of Losing Our Patents or Other Rights; -No Assurance of FDA Approval; Government Regulation; and -Our Dependence upon Bristol-Myers Squibb."

To date, our strategy has been to license technologies in their early development stages from research and educational institutions and further develop such technologies to the point where we can then sublicense them to commercial entities, as we have done with our Paclitaxel production system to Bristol-Myers Squibb. In the event we decide to expand our strategy to include developing acquired technologies to commercial stages, which we have not done to date, we would require significant additional money to complete development of and obtain regulatory approvals for our proposed products which, if ever received, may take several years. See "Risk Factors-Our Need for Substantial Additional Funds; and -No Assurance of FDA Approval; Government Regulation."

KEY AGREEMENTS

Effective January 4, 1999, we acquired proprietary technology for rational based drug design (the "Quantum Core Technology(TM)") developed by Dorit Arad, Ph. D. and employed Dr. Arad as Vice President of Drug Design.

In December 1998, we obtained an exclusive license to technology for the fungal production of Telomerase, the so-called "immortality enzyme," from the Research & Development Institute at Montana State University ("RDI").

In August 1998, we entered into an exclusive world-wide license agreement with the University of California, Los Angeles for domestic and foreign patents and patents pending based upon and including any subject matter claimed in or covered by a U.S. patent pending entitled, "Peptide Antiestrogen Compositions and Methods for Treating Breast Cancer." The agreement grants us the right to (i) make, use, sell, offer for sale, import certain products and practice any process or method involving the patents and (ii) sublicense these rights to third parties. Under this agreement, we have to pay up-front fees, maintenance fees, royalties and milestone payments. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patent and Other Rights."

In June 1998, we entered into the BMS License Agreement where we sublicensed to Bristol-Myers Squibb the technologies we had licensed from RDI and WSURF (see the next two paragraphs for a further description of these two agreements) relating to the production of Paclitaxel, the active ingredient in Bristol-Myers Squibb's largest-selling cancer product, Taxol(R). Under this agreement, Bristol-Myers Squibb has to pay us fees, milestone payments, research and development support and minimum and sales-based royalties. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patent and Other Rights; and -Our Dependence upon Bristol-Myers Squibb."

In June 1993, we entered into an exclusive world-wide license agreement with RDI to use patented fungal technology to manufacture Paclitaxel. In May 1998, we amended this agreement to require us to pay a percentage of royalties received with respect to the manufacture, use or sale of the inventions by sublicensees and all up-front, milestone and royalty payments we may receive under the BMS License Agreement. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patent and Other Rights"

In July 1996, we entered into an exclusive, world-wide license agreement with the Washington State University Research Foundation ("WSURF") to use and sublicense patented technology or prospective patented technology related to genes and associated products for the manufacturing of Paclitaxel from the yew tree. In June 1998, we amended this agreement to cover additional patents, patent applications and genes for enzymes which are expected to be the subject of future patent filings and allow us to license any of the technology as it is developed until July 2006. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patent and Other Rights."

In June 1996, we entered into an exclusive license agreement with the University of Texas System to allow us to manufacture, have manufactured, use, sell and sublicense products related to a U.S. Patent Application entitled, "A Method for Ranking Sequences to Select Target Sequence Zones of Nucleus Acids." The technology has identified specific areas within genes which would be receptive to anti-sense products. A patent issued in 1999. This discovery has potentially broad applications to many human and viral genes involved in human disease. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing Our Patent and Other Rights."

In February 1996, we obtained exclusive rights to a technology and then pending patent developed at the University of California, Los Angeles for the Paclitaxel treatment of Polycystic Kidney Disease. The Patent and Trademark Office ("PTO") issued a patent in 1998. See "Risk Factors-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patent and Other Rights."

FINANCIAL HISTORY

Until the fiscal year ended December 31, 1997, we had not generated any sales revenues. In fiscal year ended

December 31, 1998, however, we, for the first time, generated $1,183,000 in revenues from Bristol-Myers Squibb pursuant to the BMS License Agreement. We, however, have experienced operating losses of $3,106,000 for the fiscal year ended December 31, 1996; $3,357,000 for the fiscal year ended December 31, 1997 and $3,009,000 for the fiscal year ended December 31, 1998. Since our formation in 1991, we have incurred significant net operating losses, and we cannot predict when, if ever, this trend will end. See "Risk Factors-Our Accumulated Deficit and Loss per Share of Common Stock; Our History of Significant Losses and Expected Future of Significant Losses."

ORGANIZATIONAL HISTORY

We were originally incorporated in the state of Texas in September 1991. Our name was Bio Pharmaceutics, Inc. In November 1991, we changed our name to Cytoclonal Pharmaceutics Inc. We were then reincorporated in the state of Delaware by merger into a wholly-owned Delaware subsidiary in January 1992. Our executive offices are located at 9000 Harry Hines Boulevard, Suite 330, Dallas, Texas 75235 and our telephone number is (214) 353-2922.

THE OFFERING

SECURITIES:

<TABLE>

BEFORE OFFERING (AS OF APRIL 5, 1999):	
<S>	<C>
Common Stock outstanding (1).....	10,290,380
Class C Warrants outstanding.....	2,006,073
Class D Warrants outstanding.....	2,510,927

</TABLE>

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(1) Does not include as of the date hereof the possible issuance of (i) 1,796,100 shares of Common Stock reserved for issuance upon exercise of options granted or available for grant under our 1992 Stock Option Plan and 1996 Stock Option Plan; (ii) 757,673 shares of Common Stock issuable upon the conversion of our currently outstanding Series A Convertible Preferred Stock; (iii) 800,000 shares of Common Stock reserved for issuance upon exercise of an option granted to the underwriter of our initial public offering completed in November 1995; (iv) 175,000 shares of Common Stock issuable upon exercise of options and warrants granted as compensation for professional services; (v) 36,000 shares of Common Stock issuable upon the exercise of warrants granted for research and development; (vi) 2,006,073 shares of Common Stock issuable upon the exercise of the outstanding Class C Warrants issued in our initial public offering in November 1995 (the "IPO"); (vii) 2,510,927 shares of Common Stock issuable upon the exercise of the outstanding Class D Warrants issued in the IPO; (viii) 2,006,073

shares of Common Stock issuable upon the exercise of the Class D Warrants underlying the outstanding Class C Warrants issued in the IPO; (ix) 120,000 shares of Common Stock issuable upon the exercise of currently outstanding Class A Warrants; (x) 193,088 shares of Common Stock issuable upon the exercise of currently outstanding Class B Warrants; and (xi) 335,540 shares of Common Stock issuable upon the exercise of outstanding Class E Warrants.

<TABLE>
<S> <C>

ASSUMING CLASS C WARRANTS ARE EXERCISED:	
Common Stock outstanding.....	12,296,453
Class D Warrants outstanding.....	4,517,000
ASSUMING CLASS D WARRANTS ARE EXERCISED:	
Common Stock outstanding.....	16,813,453

RISK FACTORS: See page 7

USE OF PROCEEDS: We will receive the proceeds when the Warrants are exercised. We intend to utilize the net proceeds from the exercise of the Warrants to fund our research and development activities (including paying royalties and licensing fees), and for general working capital purposes and operating expenses. See "Use of Proceeds."

DIVIDEND POLICY: We currently intend to retain all future earnings to fund the development and growth of our business. We do not anticipate paying cash dividends. See "Dividend Policy."

NASDAQ SMALLCAP MARKET TICKER SYMBOLS (3): Common Stock - CYPH
Class C Warrants - CYPHW
Class D Warrants - CYPHZ
</TABLE>

SUMMARY FINANCIAL INFORMATION

<TABLE>
<CAPTION>

	Year Ended December 31,	
	1998	1997
<S>	<C>	<C>
INCOME STATEMENT DATA		
Revenue	$ 1,183,000	$ --
Research and development	1,692,000	1,469,000
General and administrative expenses	2,500,000	1,888,000
	(4,192,000)	3,357,000
Operating loss	(3,009,000)	(3,357,000)
Interest expense	(5,000)	(2,000)
Interest income	286,000	107,000
Net loss	(2,728,000)	(3,252,000)

Basic and diluted loss per common share	$ (0.30)	$ (0.42)

BALANCE SHEET DATA		
Total assets	$ 7,746,000	$ 2,802,000
Working capital	6,227,000	1,330,000
Royalties payable-less current portion	1,000,000	1,125,000
Shareholder's equity	6,062,000	1,123,000

</TABLE>

RISK FACTORS

You should carefully consider the following factors and other information in this prospectus before deciding to invest in the Company's Securities being offered hereby.

OUR ACCUMULATED DEFICIT AND LOSS PER SHARE OF COMMON STOCK.

We had an accumulated deficit of $15,104,000 as of the fiscal year ended December 31, 1997 and $17,832,000 as of the fiscal year ended December 31, 1998. Our statement of operations for the fiscal year ended December 31, 1997 shows net losses of $3,252,000, which means a loss of $.42 per share of Common Stock. Our statement of operations for the fiscal year ended December 31, 1998 shows net losses of $2,728,000, which means a loss of $.30 per share of Common Stock. See "-Our History of Significant Losses and Expected Future of Significant Losses."

OUR HISTORY OF SIGNIFICANT LOSSES AND EXPECTED FUTURE OF SIGNIFICANT LOSSES.

Until June 30, 1998, we were a "development stage" company. However, because we had revenues of $1,183,000 in the fiscal year period ended December 31, 1998 pursuant to the BMS License Agreement, we are no longer considered to be a "developmental stage" company. However, from our formation in 1991 to the date of this prospectus, we have had substantial operating losses and expect to have them for the next several years, if not more, due to our research and development activities and general and administrative expenditures. Although we had revenue in 1998, we cannot say with any certainty that we will any have future revenue, or that even if we do have revenue, that we will be profitable. See "-Our Accumulated Deficit and Loss per Share of Common Stock."

OUR NEED FOR SUBSTANTIAL ADDITIONAL FUNDS.

Since our formation in 1991, we have experienced negative cash flows from our operations which means we are spending more money than we are receiving. We also expect to experience negative cash flows in the foreseeable future. Since our formation in 1991, we have relied on loans, private financings, and our IPO completed in November 1995 to allow us to continue our operations. Our cash requirements in the future may be significantly different from our current estimates because of changes in our research and development programs, increased competition, advances in technology and other factors.

We do not have any commitments or arrangements to obtain any additional funding besides the BMS License Agreement. We cannot say with any certainty that required financing will be available to us on favorable terms, if at all. Although we plan to seek funding for some of our product development efforts by entering into research and development partnerships and obtaining government grants and research contracts, we cannot say with any amount of certainty that we will be able to enter into any additional agreements on favorable terms, if at all. If we decide to raise additional money by issuing more of our securities, stockholders at the time of the issuance will experience a dilution to the value of their securities.

OUR DEPENDENCE UPON AGREEMENTS AND LICENSES WITH OTHER COMPANIES AND INSTITUTIONS.

Our strategy is to develop, test, manufacture and eventually commercialize our products. This will require us to enter into agreements with other companies and institutions. As of the date of this Prospectus, we have entered into key license and collaborative agreements with Bristol-Myers Squibb, Enzon, RDI, UCLA, Enzon, WadTech, WSURF and the University of Texas and entered into a joint venture agreement with Pestka Biomedical Laboratories, Inc. In general, our collaborative agreements with other companies and research institutions provide that the agreements may be terminated under certain circumstances. We cannot give any assurance that we will be able to extend any of our collaborative agreements upon their termination or expiration, or that we will be able to enter into new collaborative agreements with existing or new partners in the future. To the extent we decline or are unable to enter into any additional collaborative arrangements, we would require substantially greater funding to continue our current activities.

In addition, if we are unable to enter into additional collaborative agreements, we might be significantly delayed in introducing our proposed products into certain commercial markets, or we may even find that our development, manufacture or sale of our proposed products is greatly hurt. If we enter into additional agreements, we will rely upon the other parties to honor their responsibilities and perform their obligations under the agreements. We cannot say with any certainty that our current agreements or any future agreements will allow us to develop products with commercial potential or to obtain proprietary rights or licenses for proprietary rights with respect to any technology developed in connection with these arrangements or that we will be able to guarantee the confidentiality of any proprietary rights and information developed under such collaborative arrangements or prevent their public disclosure. See "-Our Obligations to Pay Royalty Fees and the Possibility of Losing our Patents and Other Rights; -Our Competition; -Our Uncertain Ability to Protect Our Technology; and -Our Dependence upon Bristol-Myers Squibb" and "Business."

WE MIGHT EXPERIENCE PROBLEMS IN DEVELOPING OUR PRODUCTS.

We cannot say with any certainty that our research and development activities will enable us to produce any products able to withstand competition. Our development of each product is subject to the risks of failure commonly experienced in the development of products based upon innovative technologies and the expense and difficulty of obtaining approvals from regulatory agencies. All of our potential products currently under development will require significant additional funding and development and pre-clinical and clinical testing before we are able to submit them to any of the regulatory agencies for approval for commercial use. We cannot say with any certainty that we will be able to license any technologies or proposed products or to complete successfully any of our research and development activities. Even if we do complete them, we cannot say with any certainty that we will be able to market successfully any of the products or that we will be able to obtain the necessary regulatory approval or that customers will like our products. We also face the risk that any or all of our products will not work as intended or that they will be toxic, or that, even if they do work and are safe, that our products will be difficult to manufacture or market on a large scale. We also face the risk that the rights of other persons or entities will stop us from marketing any of our products or that other persons or entities might market their products as well as we market our products or even better. See "-Our Competition; -No Assurance of FDA Approval; Government Regulation; -Our Dependence upon Others for Manufacturing; Our Lack of Manufacturing Experience; and -Our Dependence upon Others for Marketing; Our Lack of Marketing Experience."

OUR OBLIGATIONS TO PAY ROYALTY FEES AND THE POSSIBILITY OF LOSING OUR PATENTS OR OTHER RIGHTS.

RDI.

Under our license agreement with RDI (the "RDI Agreement") relating to the production of Paclitaxel, we have to pay RDI a minimum royalty fee of $100,000 no later than June 10th of every year as long as the RDI Agreement is in effect. We have paid RDI royalty payments of $100,000 on June 10, 1997 and $100,000 on June 10, 1998. Also, under the RDI Agreement, we have to pay RDI

royalties on sales of products which use the technology we have licensed under the RDI Agreement. The royalty percentage is higher if a patent for the technology has been issued by the PTO. In May 1998, we amended the RDI Agreement to require us to pay RDI (i) a percentage of royalties received by us from sublicensees who manufacture, use or sell products using the technology licensed to us under the RDI Agreement, which royalty rate will be reduced if we are required to pay royalties to other parties, and (ii) payments we might receive under the BMS License Agreement. Our business would be significantly hurt if we lost the RDI Agreement. See "-Our Dependence upon Bristol-Myers Squibb."

WadTech.

Under our agreement with WadTech where we purchased certain of their technology (the "Wadley Technology"), we are required to pay WadTech a royalty fee of 6.25% of the gross selling prices of products which use any of the Wadley Technology until we have paid to WadTech a total of $1,250,000. After that, the royalty rate will drop to 3.75%. We have paid WadTech royalty fees of $31,250 for the year beginning October 1, 1996 and $62,500

for the year beginning October 1, 1997. We have to pay WadTech $125,000 for each year after that. WadTech has a perfected security interest in the Wadley Technology to secure the payment of the first $1,250,000 of royalties. WadTech still has the right to license the WadTech Technology to other parties or sell it if we do not satisfy obligations. We have to pay a royalty fee of 3% on sales of products produced through a system involving technology concerning yeast which was assigned to us when we purchased the Wadley Technology. Our business would be significantly hurt if we lost the WadTech Technology.

WSURF.

Under our license agreement with WSURF, we are required to pay WSURF an annual license fee every year, beginning July 1, 1997, as well as royalty and sublicensing fees. We have paid last year's annual license fee. Our business would be significantly hurt if we lost the technology under this license agreement with WSURF. See "-Our Dependence upon Bristol-Myers Squibb."

Enzon.

Under the Enzon Agreement, if we and Enzon decide to develop any products together, the costs and profits of the development will be split equally. The agreement also says that if we are unable to pay our share of the costs, we will lose our rights to any of the products which are developed and we will not have the right to split the profits from any of the products which are developed. We will only be entitled to a royalty fee. Our business would be significantly hurt if we lost the Enzon Agreement. See "-Our Dependence upon Agreements and Licenses with Other Companies and Institutions."

University of Texas.

Under our agreement with the University of Texas, we have paid the University $273,213 of the $285,240 which we owe them as of December 31, 1998 when we and the university amended the agreement to grant us the right to develop and commercialize any intellectual property under the original agreement and which requires that we and the University negotiate a royalty fee which is less than 8% of the net sales of any commercialized products. We also entered into a Patent License Agreement with the Board of Regents of the University of Texas which requires us to pay Regents licensing and sublicensing fees. Our business would be significantly hurt if we lost any of our agreements with the University of Texas.

University of California, Los Angeles.

We have three separate license agreements with the University of California, Los Angeles ("UCLA"). Under our first license agreement with UCLA, we have paid them $5,000, and have agreed to pay an additional $10,000 upon issuance of a patent. Under our second license agreement with UCLA, we have paid them a $5,000 license issuance fee, and we have agreed to pay an additional $5,000 upon the issuance of a patent. Under our third license agreement with

UCLA, we have agreed to pay them a $20,000 license issuance fee, an additional $25,000 fee upon the issuance of a patent, annual maintenance fees which increase every year and minimum annual royalty payments. Our business would be substantially hurt if we lose any of our agreements with UCLA.

OUR COMPETITION.

We are in the rapidly changing, competitive and heavily regulated biotechnology industry which makes it difficult for us to predict our risks and expenses with any amount of certainty. Many of our competitors have more financial, technical, human and other resources than us. Also, many of our competitors have significantly more experience than us in performing pre-clinical testing and human clinical trials of new products and obtaining approvals from the United States Food and Drug Administration ("FDA"), PTO and other regulatory agencies. It is a possibility that our competitors may receive FDA or PTO approval before us and at less cost. Also, our employees and management

have little or no experience producing and selling any pharmaceutical or biological products. Investors should be aware that in June 1991, the National Cancer Institute ("NCI") entered into a Collaborative Research and Development Agreement ("CRADA") with Bristol-Myers Squibb to develop Paclitaxel and granted Bristol-Myers Squibb the exclusive use of NCI's clinical data relating to Paclitaxel in seeking approval from the FDA until December 1997, which significantly shortened the approval process and prevented any other party from obtaining FDA approval using the NCI data. Although Bristol-Myers Squibb has since lost its right of exclusivity under the CRADA, it has patented its method of delivering Paclitaxel intravenously to a patient. Such patent has in fact kept Bristol-Myers Squibb's use of the NCI data exclusive. Other companies are currently contesting the exclusivity in the courts. Bristol-Myers Squibb also received FDA approval for commercial sale of its Paclitaxel for refractory ovarian cancer in December 1992, refractory breast cancer in August 1994, Kaposi's Sarcoma in August 1997 and lung cancer in 1998. Since December 1992, Bristol-Myers Squibb has been the sole source of Paclitaxel for commercial purposes. We think that Bristol-Myers Squibb is currently conducting clinical trials in order to get FDA approval for treating other types of cancer. See "-No Assurance of FDA Approval, Government Regulation; -Our Dependence upon Bristol-Myers Squibb; -Our Dependence upon Others for Manufacturing; Our Lack of Manufacturing Experience; -Our Dependence upon Other for Marketing; Our Lack of Marketing Experience; and -Our Dependence upon Key Personnel and Collaborators; Our Limited Management Team."

OUR UNCERTAIN ABILITY TO PROTECT OUR TECHNOLOGY.

Our success will depend, in part, on our ability to get patent protection for our products and processes in the United States and elsewhere. We have filed and intend to continue to file patent applications as we need them. We cannot say with any certainty, however, that any additional patents will issue from any of these applications or, if patents do issue, that the claims allowed will be sufficiently broad to protect our technology. Also, we cannot say with any certainty that any patents issued to us or licensed by us can withstand challenges made by others or that we will able to protect our rights. See "-Our Competition; and -Our Dependence upon Key Personnel and Collaborators; Our Limited Management Team."

We are aware of patent applications and issued patents belonging to our competitors, and we are uncertain whether any of these, or of any patent applications which we do not know about, will require us to alter or cease our potential products or processes. We cannot say with any certainty that we will be able to obtain any licenses to technology that we will require or, if obtainable, that the cost of them will be reasonable. Our failure to obtain any necessary licenses to any technology could substantially hurt our business. Expensive and drawn-out litigation may also be necessary for us to assert any of our rights or to determine the scope and validity of rights claimed by other parties. Litigation could be too expensive for us to pursue without great cost and uncertainty as to the outcome. Our failure to pursue litigation could result in the loss of our rights which could substantially hurt our business. See "-Our Competition; and -Our Dependence upon Key Personnel and Collaborators; Our

Limited Management Team."

We also rely on trade secrets and confidential information which we try to protect by entering into confidentiality agreements with other parties. We cannot say with any certainty that any of the confidentiality agreements will honored, or, if breached, we would have enough remedies to protect the confidential information, or that our competitors will not independently learn our trade secrets. The loss of our trade secrets would substantially hurt our business. See "-Our Competition; and -Our Dependence upon Key Personnel and Collaborators; Our Limited Management Team."

NO ASSURANCE OF FDA APPROVAL; GOVERNMENT REGULATION.

The FDA and other similar agencies in foreign countries have substantial requirements for therapeutic and diagnostic pharmaceutical and biological products. Such requirements often involve lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures. It often takes companies several years to satisfy these requirements, depending on the complexity and novelty of the product. The review process is also extensive which may delay the approval process even more. These regulatory requirements could

substantially hurt our ability to clinically test and manufacture our potential products. Government regulation could also delay our marketing of new products for a considerable period of time, impose costly procedures upon our activities and give our competitors an advantage. We cannot say with any certainty that the FDA or other regulatory agency will grant us approval for any of our products on a timely basis, if at all. Any delay in obtaining, or failure to obtain, such approvals could substantially hurt our marketing of any proposed products and our ability to earn product revenue. Further, regulation is subject to change. Any additional regulation could limit or restrict our ability to use any of our technologies which could substantially hurt our operations. See "-Our Competition."

We also have to comply with the Occupational Safety and Health Administration ("OSHA"), Environmental Protection Agency ("EPA"), Toxic Substances Control Act, Resource Conservation and Recovery Act and other regulatory laws. In the future, we could also be subject to other federal, state or local regulations. OSHA or the EPA may establish regulations which could affect our research and development programs. We are unable to predict whether any agency will adopt any rule which could substantially hurt our business. See "-Our Competition."

UNCERTAINTY RELATED TO HEALTH CARE REIMBURSEMENT AND REFORM MEASURES.

Our success in developing our products may depend, in part, on whether we will be reimbursed by government health administration authorities, private health insurers and other organizations. There is significant uncertainty if costs associated with newly-approved health care products will be reimbursed. We cannot say with any certainty whether sufficient insurance coverage will be available for us to establish and maintain price levels sufficient to realize an appropriate return on developing new products. Government and other third-party payers are attempting to contain health care costs more every day by limiting both coverage and the level of reimbursement of new therapeutic and diagnostic products approved for marketing by the FDA and by refusing, in some cases, to provide any coverage of uses of approved products for disease indications for which the FDA has not granted marketing approval. If adequate coverage and reimbursement levels are not provided by government and third-party payers for uses of our products, it will make it very difficult for us to market our products to doctors and hospitals because their patients might not be able to pay for the products without any insurance coverage or reimbursement. See "-Our Competition; and -No Assurance of FDA Approval, Government Regulation."

OUR DEPENDENCE UPON BRISTOL-MYERS SQUIBB.

In June 1998, we entered into the BMS License Agreement and a Sponsored Research Agreement (the "R&D Agreement") with Bristol-Myers Squibb. Under the BMS License Agreement, we granted Bristol-Myers Squibb an exclusive sublicense

under the RDI Agreement (the "BMS License Agreement-RDI Sublicense Agreement") and the WSURF Agreement. Under the RDI Agreement, we acquired a license to certain patents and technology relating to the use of microorganisms to produce Paclitaxel and other taxanes and components. Under the WSURF Agreement, we acquired a license to certain patents and technology relating to genes related to enzymes involved in the production of Paclitaxel and other taxanes. The BMS License Agreement requires Bristol-Myers Squibb to pay royalties based on the amount of sales and lump sum payments when certain events occur. Under the BMS License Agreement, Bristol-Myers Squibb has the right to negotiate with us before anyone else does, an exclusive, world-wide right to license or sublicense any of the technology licensed to us under the RDI Agreement and WSURF Agreement and potentially new anti-cancer drugs from microorganisms supplied by us. The term of the BMS License Agreement shall end until the occurrence of later of (i) ten (10) years from the first commercial sale of the licensed products or (ii) such time as neither the making, use nor sale at the time by Bristol-Myers Squibb, its affiliates or sublicensees in such country of the licensed product does not infringe (a) any U.S. or foreign patents or patent applications, including reissues, renewals, extensions, continuations or continuations-in-part, copyrights or trademarks owned and licensed by RDI to us under the RDI Agreement, (b) certain U.S. and foreign patents or patent applications owned by WSURF and licensed by WSURF to us under the WSURF Agreement and (c) other licensed property together with all patent rights pertaining thereto, to the extent that such patent rights are not already part of the RDI Agreement and WSURF Agreement. Bristol-Myers Squibb can terminate the BMS License Agreement after December 12, 1998, after they have given us ninety (90) days notice, in which event the Bristol-Myers Squibb sublicense under the RDI Agreement and WSURF Agreement will

terminate, although any payment obligations would survive termination. We cannot say with any certainty that Bristol-Myers Squibb will successfully manufacture or market the licensed property, if it does at all, or that we will be able to maintain the RDI Agreement or the WSURF Agreement. See "-Our Dependence upon Agreements and Licenses with Other Companies and Institutions."

Bristol-Myers Squibb can renew the R&D Agreement for continuous one-year periods only if the BMS License Agreement is still in effect. The R&D Agreement contemplates, without assurance, a program to develop microbial fermentation and genetic engineering technologies for the production of Paclitaxel and other taxanes. See "-Our Dependence upon Agreements and Licenses with Other Companies and Institutions."

OUR DEPENDENCE UPON OTHERS FOR MANUFACTURING; OUR LACK OF MANUFACTURING EXPERIENCE.

We currently do not have facilities or personnel capable of manufacturing any products in commercial quantities. Pursuant to the BMS License Agreement and a sub-license between us and Bristol-Myers Squibb, Bristol-Myers Squibb has the world-wide exclusive right to utilize the technology licensed to us by RDI pursuant to the RDI Agreement to produce, have made and/or sell Paclitaxel (to be commercialized as Taxol(R)) and other taxanes and compounds, although no assurances can be given. Also pursuant to the BMS License Agreement and a sublicense between us and Bristol-Myers Squibb, Bristol-Myers Squibb has the world-wide exclusive right to practice the technology licensed to us by WSURF pursuant to the WSURF Agreement to make, have made, use, lease and sell the products covered in the WSURF Agreement, although no assurances can be given. Notwithstanding, we cannot say with any certainty whether we will be able to enter into any future arrangements with additional outside manufacturers on terms favorable to us, if at all. In the future, we may, if it becomes economically attractive to do so, establish our own manufacturing facilities to produce other products that we may develop. Building and operating production facilities would require substantial additional funds and other resources. We cannot say with any certainty, however, whether such funds would be available on favorable terms to us, if at all. Also, we cannot say with any certainty whether we will be able to shift successfully our operations to commercial development. See "-Our Dependence upon Agreements and Licenses with Other Companies and Institutions; and -Our Dependence upon Bristol-Myers Squibb" and "Business-Collaborative Agreements-Bristol Myers Squibb; -RDI and -WSURF."

OUR DEPENDENCE UPON OTHERS FOR MARKETING; OUR LACK OF MARKETING EXPERIENCE.

We currently have no marketing and sales personnel and no experience in marketing pharmaceutical products. We would have to spend significant funds and dedicate a significant amount of management resources to develop our own sales force. We cannot say with any certainty that any funds or resources to develop our own sales force will be available. Further, we cannot say with any certainty that, with a sales force, we would successfully penetrate the markets for any of our products. For certain products under development, we may seek to enter into marketing agreements with other entities which would grant them exclusive marketing rights in return for royalties based on sales, if any. Under some of these agreements, the other entity may have the responsibility for all or a significant part of the development and obtaining regulatory approval. In the event that the marketing and development partner fails to develop a marketable product or fails to successfully market a product, our business could be substantially hurt. The sale of certain products outside the United States will also be dependent upon the successful completion of arrangements with future partners, licensees or distributors in each territory. We cannot give any assurance, however, that we will successfully establish any additional collaborative arrangements, or that, if established, such future partners will successfully commercialize any products, if at all.

OUR DEPENDENCE UPON KEY PERSONNEL AND COLLABORATORS; OUR LIMITED MANAGEMENT TEAM.

Much of our success depends upon the continued contributions of our executive officers, scientific and technical personnel and consultants. We are particularly dependent upon Arthur P. Bollon, Ph.D., our Chairman of our Board of Directors, Chief Executive Officer and President, and Daniel Shusterman, our Vice President of Operations, Treasurer and Chief Financial Officer, Dorit Arad, Ph.D., our Vice President of Drug Design, as well as our senior

scientists, Susan L. Berent, Ph.D., Hakim Labidi, Ph.D., Rajinder S. Sidhu, Ph.D. and Richard M. Torczynski, Ph.D. As of April 5, 1999, we had 19 full-time employees, 15 of whom are engaged directly in research and development activities, including 8 Ph.D.s, and 4 of whom are in executive and administrative positions. Our employees are not governed by any collective bargaining agreement, and we believe that our relationship with our employees is good. We currently have an employment agreement with Dr. Bollon which expires on November 6, 2003. Although we maintain "key person" life insurance which provides that upon the death or incapacity of Dr. Bollon, we will receive $2 million, Dr. Bollon's death or incapacity could substantially hurt our business. During our limited operating history, many important responsibilities within the Company have been assigned to a relatively small number of individuals. The competition for qualified personnel is intense, and the loss of services of certain key personnel could substantially hurt the Company. See "Business-Human Resources" and "Management."

Our scientific collaborators and advisors are employed by companies and institutions other than us, and some of them have consulting or other advisory arrangements with other entities and institutions which could conflict or compete with their obligations to us. Inventions or processes discovered by such persons will not necessarily become the property of us but may remain the property of such persons or of such persons' full-time employers. See "Management."

PRODUCT LIABILITY INSURANCE.

Our products, either when using them in clinical trials or when marketing them, could expose us to product liability claims. Although we intend to obtain product liability insurance for our ongoing clinical trials, we cannot say with any certainty that we will be able to obtain, maintain or increase our insurance coverage in the future on terms favorable to us, if at all, or that any claims against us will not be greater than the amount of such coverage. Furthermore, certain distributors of pharmaceutical and biological products require minimum product liability insurance coverage as a condition before they start purchasing or accepting products for distribution. Our failure to satisfy such insurance requirements could decrease our ability to achieve broad

distribution of our proposed products, which could substantially hurt our business.

CONTROL OF THE COMPANY; ABILITY TO DIRECT MANAGEMENT.

Our current officers, directors and stockholders who own more than 5% of our securities beneficially own or control approximately 50.8% of our outstanding shares of Common Stock, which represents approximately 48.2% of our total outstanding voting securities. Such officers, directors and principal stockholders may, therefore, be able to elect all of our directors, to determine the outcome of most corporate actions requiring stockholder approval, and otherwise to control the direction of our business. Such control could prevent another party from trying to acquire a majority position in our business which could potentially otherwise cause the price of our securities to increase. In addition, our Board of Directors is authorized to issue from time to time shares of preferred stock, without stockholder authorization, in one or more designated series or classes. See "-Possible Restriction on 'Market Making' Activities in the Company's Securities; Illiquidity; -Description of Securities; and "Selling Stockholders."

OUR DIVIDEND POLICY.

Since our formation in 1991, we have not paid any dividends on our Common Stock. We intend to retain future earnings, if any, to provide funds for the operation of our business and, accordingly, do not anticipate paying any cash dividends on our Common Stock in the future. Furthermore, the terms of our outstanding Series A Preferred Stock do not allow for the payment of cash dividends on the Common Stock unless and until all accrued and unpaid dividends on the Series A Preferred Stock shall have been paid or set apart for payment.

INDEMNIFICATION OF OFFICERS AND DIRECTORS.

We are currently a Delaware corporation. Our Certificate of Incorporation includes certain provisions permitted

under the Delaware General Corporation Law ("DGCL") whereby our officers and directors are indemnified against certain liabilities. Our Certificate of Incorporation also limits, to the fullest extent permitted by the DGCL, a director's liability for monetary damages for breach of fiduciary duty, including gross negligence, except liability for (i) breach of the director's duty of loyalty, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law, (iii) the unlawful payment of a dividend or unlawful stock purchase or redemption and (iv) any transaction from which the director derives an improper personal benefit. The DGCL does not eliminate a director's duty of care and this provision has no effect on the availability of equitable remedies such as injunction or rescission based upon a director's breach of the duty of care. In addition, an insurance policy, which provides for coverage for certain liabilities of its officers and Directors has been issued to us.

POSSIBLE RESTRICTION ON "MARKET MAKING" ACTIVITIES IN THE COMPANY'S SECURITIES; ILLIQUIDITY.

Upon the completion of this offering, Bruce Meyers and Peter Janssen will beneficially own approximately 11.6% and 8.0%, respectively, of the outstanding shares of Common Stock, which represents approximately 11.2% and 7.7%, respectively, of the total outstanding voting securities. Messrs. Meyers and Janssen are the principals of the corporate general partner of JMA. If JMA or its affiliates are deemed to have control of our business, regulatory requirements of the SEC, Nasdaq and the New York Stock Exchange, Inc. could prevent JMA from engaging in market-making activities relating to our securities. If JMA is unable to make a market in our securities because it is deemed to have effective voting control or if, for any other reason, it chooses not to or is unable to make a market in our securities, there can be no assurance that any other broker-dealers would make a market in our securities. Without market-makers, it would be very difficult for holders of our securities to sell their securities in the secondary market, and the market prices for such securities would be substantially harmed. Also, we cannot give any assurances

that an active trading market for our securities be maintained whether or not JMA makes a market in our securities. In the absence of such a market, investors may be unable to liquidate their investment. See "-Absence of Public Market; Possible Volatility of Common Stock and Warrant Prices; and -Selling Stockholders."

POSSIBLE DELISTING OF OUR SECURITIES FROM THE NASDAQ SMALLCAP MARKET SYSTEM.

Our Common Stock, Class C Warrants and Class D Warrants are currently quoted on the Nasdaq SmallCap Market System. Our Common Stock is quoted under the symbol, "CYPH." Our Class C Warrants are quoted under the symbol, "CYPHW." Our Class D Warrants are quoted under the symbol, "CYPHZ." Nasdaq has certain requirements that every company must meet in order to have their securities first quoted on the Nasdaq SmallCap Market System, and has another set of requirements that a company must meet to continue to have their securities quoted on the Nasdaq SmallCap System. Although we currently meet Nasdaq's criteria for continued listing, we cannot say with any certainty that we will continue to meet such criteria. For continued inclusion on the Nasdaq SmallCap Market System, a company has to maintain (i) either (A) net tangible assets of $2 million, (B) market capitalization of $35 million or (C) net income of $500,000 in the most recently completed fiscal year or in two of the last three most recently completed fiscal years; (ii) a minimum bid price of $1.00 per share; (iii) in the case of a convertible debt security, a principal amount outstanding of at least $5 million; (iv) in the case of common stock, at least 300 round lot holders and (v) 500,000 publicly held shares having a market value of at least $1 million. If we are unable to meet the continued listing criteria of the Nasdaq SmallCap Market System any time in the future due to our continued operating losses or otherwise, and our securities are delisted, trading, if at all, of our securities, if any, would be conducted in the over-the-counter market in the so-called "pink sheets" or, if available, the NASD's "Electronic Bulletin Board." As a result, investors could find it more difficult to dispose of, or to obtain accurate quotations as to the value of, our securities. See "-Our Accumulated Deficit and Loss per Share of Common Stock; Our History of Significant Losses and Expected Future of Significant Losses; and -Our Need for Substantial Additional Funds."

RISK OF LOW-PRICED STOCKS; "PENNY STOCK" REGULATIONS.

If our securities are delisted from the Nasdaq SmallCap Market System, they may become subject to Rule 15g-9 under the Exchange Act of 1934, which imposes additional sales practice requirements on broker-dealers that sell such

securities. There are exceptions to Rule 15g-9 and they include transactions meeting the safe-harbor requirements of Rules 505 or 506 under Regulation D of the Securities Act, and transactions in which the purchaser is an institutional accredited investor (as defined in the Securities Act) or an established customer (as defined in the Securities Act) of the broker-dealer. For transactions which have to comply with the requirements of Rule 15g-9 under the Exchange Act of 1934, a broker-dealer must determine whether or not the purchaser meets a special suitability standard, and the broker-dealer must receive the purchaser's written consent to the transaction before the sale. These requirements could make broker-dealers unwilling or even unable to sell our securities which could make it more difficult for our investors to resell their securities to other parties. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System."

Also, the SEC defines a "penny stock" to be any equity security that has a market price (as therein defined) under $5.00 per share or has an exercise price under $5.00 per share, subject to certain exceptions. Unless exempt, the rules require the delivery, prior to any transaction in a penny stock, of SEC material telling the purchaser certain information about the penny stock. Purchasers must also be told about the commissions that the broker-dealers and the registered representatives will get and they must be told about the securities current prices. Finally, purchasers must also be given statements every month which have to tell the purchaser about his or her securities' recent prices and about the limitations of the penny stock market. These penny stock restrictions will not apply to our securities if they stay quoted on the Nasdaq SmallCap Market System, and if they have certain price and volume information

provided on a current and continuing basis or if they meet certain minimum net tangible assets or average revenue criteria. We cannot say with any certainty, however, that our securities will continue to meet the Nasdaq SmallCap Market requirements in the future and if we do not, the prices of our securities could decrease and investors could find it difficult to sell their securities. Anyway, even if we remain exempt from the penny-stock restrictions, we still have to comply with Section 15(b)(6) under the Exchange Act of 1934, which gives the SEC the authority to stop any person who breaks the law when selling penny stock from selling any more penny stock or from working with any broker-dealer. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System; and -Risk of Low-Priced Stocks; 'Penny Stock' Regulations."

SHARES ELIGIBLE FOR FUTURE SALE; REGISTRATION RIGHTS AND DILUTION.

The market price of our Common Stock, Class C Warrants and Class D Warrants could drop as a result of a large number of shares of Common Stock in the market after the offering, or the perceptions that such sales could occur. These factors also could make it more difficult for us to raise funds through future offerings of our securities. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System; and -Risk of Low-Priced Stocks; 'Penny Stock' Regulations."

There will be 16,813,453 registered shares of our Common Stock outstanding upon the completion of this offering. All of these shares will be freely transferrable without restriction if we continue to comply with the SEC and certain states' registration requirements. Certain of our other outstanding securities are not registered with the SEC, and are considered to be, "restricted securities" as that term is defined in Rule 144 under the Securities Act and may only be sold in certain circumstances. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System; and -Risk of Low-Priced Stocks; 'Penny Stock' Regulations."

We have also granted certain of our investors who are holding restricted stock, certain rights to have their Common Stock registered with the SEC which would lift the selling restrictions of Rule 144 under the Securities Act. The rights are known as either "demand registration rights" and "piggy-back registration rights." "Demand registration rights" are rights given to investors to require us to register their Common Stock at our expense. We have usually limited how many times investors can exercise these demand registration rights and have asked for a minimum number of shares of Common Stock before we incur the expense of registration. "Piggy-back registration rights" are rights given to investors to ask that we include their Common Stock in any registration statement we are preparing to file with the SEC. These piggy-back registration rights can be exercised only if the registration statement is on an appropriate form; and if it is an underwritten offering, the underwriter of the offering does not object. The holders of the option granted

during our initial public offering have certain demand registration rights beginning November 2, 1998 for the shares of Common Stock issuable upon the exercise of such option Holders of (i) 2,000,000 shares of Common Stock outstanding, (ii) options to purchase 200,000 shares of Common Stock, (iii) 757,673 shares of Series A Preferred Stock convertible into the same number of shares of Common Stock and (iv) options to purchase 100,000 shares of Series A Preferred Stock convertible into the same number of shares of Common Stock (we will refer to the Common Stock mentioned in (i) through (iv) as the "Registrable Securities") have demand registration rights and piggy-back registration rights for Registrable Securities from now until November 7, 2000. The holders of more than 50% of the Registrable Securities may request that we file a registration statement under the Securities Act, and, subject to certain conditions, we generally will be required to use our best efforts to have the SEC declare the registration statement to be effective. In addition, if we propose to register any of our securities, either for sale by us or by other investors, we are required, with certain exceptions, to notify the holders described above and, subject to certain limitations, to include in the first two such registration statements filed after December 7, 1996 and before November 7, 2000, all of the Registrable Securities requested to be included by such holders. In addition, we have (i) registered our Class A Warrants, Class B Warrants and the 313,088

remaining shares of Common Stock issuable upon the exercise of such warrants which are outstanding as of April 5, 1999; (ii) registered 150,000 shares of Common Stock issuable upon the exercise of warrants we had issued to the placement agent for its services rendered to the us during our private placement completed in 1992; (iii) registered 1,796,000 shares of Common Stock issuable upon the exercise of options granted and which we have the right to grant under our 1992 Stock Option Plan and 1996 Stock Option Plan; (iv) registered 671,026 shares of Common Stock and 335,540 shares of Common Stock issuable upon the exercise of Class E Warrants we issued in our April 1998 Private Placement,; (v) 134,199 shares of Common Stock and 67,101 shares of Common Stock issuable upon the exercise of Class E Warrants underlying a unit purchase option granted to JMA in consideration for its placement agent services in connection with our April 1998 Private Placement; (vi) granted certain "piggy-back" registration rights to the holders of 20,000 shares of Common Stock issued by us in connection with our formation of a joint venture with Pestka Biomedical Laboratories, Inc.; and (vii) granted the holders of options and warrants to purchase a total of 175,000 shares of Common Stock certain "piggy-back" registration rights for providing us with financial advisory and public relations services rendered to us and pursuant to a license agreement. We will have to pay for the expense of registration if one or more of these groups exercise their demand registration rights or "piggy-back" registration rights. The expense could be high. Also, because there would be a high number of shares outstanding, we could find it more difficult to obtain future financing. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System; - -Risk of Low-Priced Stocks; 'Penny Stock' Regulations; and Description of Securities."

The sale, or availability for sale, of substantial amounts of Common Stock in the public market pursuant to Rule 144 or registration could cause the market price of the Common Stock and our other securities to decrease which could hurt our ability to raise additional money through the sale of our securities or through debt financing. Also, to the extent that outstanding options and warrants are exercised, investors' ownership interest will drop. Also, if, and to the extent, that we reduce the exercise price of outstanding warrants or options, our stockholders could experience additional dilution. See "-Possible Delisting of Our Securities from the Nasdaq SmallCap Market System; and -Risk of Low-Priced Stocks; 'Penny Stock' Regulations."

ABSENCE OF PUBLIC MARKET; POSSIBLE VOLATILITY OF COMMON STOCK AND WARRANT PRICES.

Our Common Stock, Class C Warrants and Class D Warrants are currently quoted on the Nasdaq SmallCap Market System. We cannot say with any certainty that the market for our securities will continue to be active. We are in the biopharmaceutical industry and the market prices of securities of newly-formed health care companies have been very unpredictable. Announcements of biological or medical discoveries or technological innovations by us or our competitors, developments concerning proprietary rights, including patents and litigation matters, regulatory developments in both the United States and foreign countries, public concern as to the safety of new technologies, general market conditions, quarterly fluctuations in our financial condition and other factors could cause the market price of our securities to drop.

POTENTIAL ANTI-TAKEOVER EFFECTS.

Certain provisions of our Certificate of Incorporation could make it more difficult for a third party to acquire control of our business, even if such change in control would be beneficial to stockholders. Our Certificate of Incorporation allows our Board of Directors to issue preferred stock without stockholder approval. Such issuance could make it more difficult for a third party to acquire our business. In addition, certain provisions contained in each of the employment agreements with each of Dr. Arthur P. Bollon, our Chairman, President and Chief Executive Officer, and Mr. Daniel Shusterman, our Vice President of Operations, Treasurer and Chief Financial Officer, obligate us to make certain salary payments if their employment is terminated without just cause or due to a Disability (as defined therein). See "-Possible Adverse and Anti-Takeover Effect of Preferred Stock; and Description of Securities."

POSSIBLE ADVERSE AND ANTI-TAKEOVER EFFECTS OF PREFERRED STOCK.

Our Certificate of Incorporation authorizes our Board of Directors to issue a maximum of 10,000,000 shares of preferred stock on terms which may be determined by them without getting stockholder approval. Of these 10,000,000 shares, 4,000,000 shares have already been designated as Series A Preferred Stock of which 757,673 remain outstanding as of April 5, 1999. The Series A Preferred Stock are not registered with the SEC or quoted on the Nasdaq SmallCap Market System or any other exchange. They can, however, be converted by the holder into an equal number of shares of Common Stock. Also, the terms of the Series A Preferred Stock include dividend and liquidation preferences which could also hurt the rights of holders of the Common Stock being offered hereby. In addition, each share of Series A Preferred Stock is entitled to one vote on all matters on which the Common Stock has the right to vote. Holders of Series A Preferred Stock are also entitled to vote as a separate class on any proposed adverse change in their rights, preferences or privileges and any increase in the number of authorized shares of Series A Preferred Stock. Further, the terms of any additional series of preferred stock, which may also include priority claims to assets and dividends, as well as special voting rights, could hurt the rights of the holders of the Common Stock being offered hereby. Other than 1,737,791 shares of Series A Preferred Stock, of which 980,118 have been converted into Common Stock as of April 5, 1999, we have not issued any other preferred stock, and we do not plan to issue any additional preferred stock other than payment-in-kind dividends. Since we want to use all of our funds to continue our various projects but have to pay the holders of the Series A Preferred Stock a dividend at the end of every fiscal year, we typically choose to pay them by giving them more shares of Series A Preferred Stock instead of money.

Investors should also know that if too much preferred stock is outstanding, it could make it more difficult for a third party to take control of our business or to remove our Board of Directors and executive officers. Hostile bids for control of a company usually result in the market prices for a company's securities to increase. It would also dilute or subordinate the rights of holders of Common Stock and cause the market price of the Common Stock to drop. See "Description of Securities."

CURRENT PROSPECTUS AND STATE REGISTRATION REQUIRED TO RESELL COMMON STOCK.

The Common Stock in this offering can be resold by the Selling Stockholders only if a current registration statement relating to them in effect under the Securities Act and if the Common Stock is qualified for resale or exempt from qualification under the applicable securities or "blue sky" laws of the states in which the Selling Stockholders reside. We cannot say with any certainty that we will be able to meet the SEC and states' registration requirements. If we cannot meet the requirements, the Selling Stockholders will be unable to resell their Common Stock. See "Selling Stockholders; Description of Securities; and Plan of Distribution."

In addition, the Warrants are subject to redemption by the Company at $.05 per Warrant, commencing on November 2, 1996, on at least 30 days' prior written notice if the average closing bid price (or last sales price) of the Common Stock for 30 consecutive business days ending within 15 business days of the date on which the notice of redemption is given exceeds $9.10 per share with respect to the Class C Warrants and $12.25 per share with respect to the Class D Warrants. If the Warrants are redeemed, holders of Warrants will lose their right to exercise the Warrants,

except during such 30-day notice of redemption period. Upon the receipt of a notice of redemption of the Warrants, the holders thereof would be required to: exercise the Warrants and pay the exercise price at a time when it may be disadvantageous for them to do so; sell the Warrants at the then market price (if any) when they might otherwise wish to hold the Warrants; or accept the redemption price, which is likely to be substantially less than the market value of the Warrants at the time of redemption. See "Description of Securities -- Class C Warrants and Class D Warrants."

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

The Company's Common Stock, Class C Warrants and Class D Warrants are quoted in the over-the-counter market on the Nasdaq SmallCap Market System under the symbols "CYPH," "CYPHW" and "CYPHZ," respectively, since November 2, 1995. The following table sets forth the high and low bid prices for the Common Stock as reported by the National Association of Securities Dealers, Inc. for the periods indicated. The prices set forth below represent quotes between dealers and do not include commissions, mark-ups or mark-downs, and may not necessarily represent actual transactions.

<TABLE>
<CAPTION>

	Common Stock		Class C Warrants		Class D Warrants	
	High	Low	High	Low	High	Low
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Fiscal 1997						
1st Quarter	$4-7/16	$2-1/8	$1- 7/8	$11/16	$11/16	$5/32
2nd Quarter	3-1/4	2-1/2	1	3/8	5/8	1/4
3rd Quarter	10-1/16	2-7/16	5-7/8	9/16	2-11/16	3/16
4th Quarter	11-1/2	5-7/8	9-3/8	2 13/16	5	1-3/8
Fiscal 1998						
1st Quarter	12	5-3/4	9-3/4	4-1/2	5	2-1/8
2nd Quarter	14-3/4	6-7/6	14-5/16	4-1/4	6-3/8	2-7/8
3rd Quarter	9-5/8	3-1/8	7-1/8	2	3-11/16	15/16
4th Quarter	7-7/16	4-3/8	4-1/4	1-5/8	2-1/4	15/16
Fiscal 1999						
1st Quarter	9-7/16	6-7/8	6-3/4	3-5/8	3-5/8	1-3/8
2nd Quarter (through April 9, 1999)	8-7/16	7-3/16	4-5/8	3-1/8	2	1-7/16

</TABLE>

The Company believes that as of April 5, 1999, there were in excess of 1,000 beneficial holders of its Common Stock.

The Company has never paid cash dividends on its Common Stock and does not anticipate paying cash dividends on its Common Stock in the foreseeable future.

DIVIDEND POLICY

The Company has never declared or paid any cash dividends on the Common Stock. The Company intends for the foreseeable future to reinvest earnings, if any, to fund the development and expansion of its business. The declaration of dividends in the future will be at the discretion of the Board of Directors and will depend upon the earnings, capital requirements and financial position of the Company, general economic conditions and other pertinent factors. The terms of the Company's outstanding Series A Preferred Stock do not allow for the payment of cash dividends on the Common Stock unless and until all accrued and unpaid dividends on the Series A Preferred Stock shall have been paid or set apart for payment. The Company paid dividends in cash of $121,491 and in-kind of shares of Series A Preferred Stock in payment of its 1992 dividend on the Series A Preferred Stock. For years the fiscal years ended December 31, 1993, 1994,

1995, 1996, 1997 and 1998, the Company also paid in-kind dividends of 104,869, 115,307, 126,888, 122,788, 94,680 and 74,648 shares of Series A Preferred Stock, respectively, in payment of dividends on the Series A Preferred Stock. The Company currently intends to retain all earnings, if any, to finance the growth and development of its business and anticipates that, for the foreseeable future, that it will continue to pay dividends in-kind on its outstanding Series A Preferred Stock. See "Plan of Operation" and "Description of Securities."

DILUTION

At December 31, 1998, the Company's Common Stock had a net tangible book value of $5,352,000, or $.52 per share, which represents the amount of the Company's total tangible assets less liabilities, based on 10,209,844 shares of Common Stock outstanding. Giving effect to the exercise of outstanding Class C Warrants, the pro forma net tangible book value of the shares of Common Stock at December 31, 1998 would have been $1.45 per share, representing an immediate dilution per share of $5.05 to individuals exercising Class C Warrants. Giving additional effect to the exercise of the 2,510,927 outstanding Class D Warrants and the 2,006,073 Class D Warrants issuable upon exercise of the outstanding Class C Warrants, the pro forma net tangible book value of the shares of Common Stock at December 31, 1998 would have been $3.30 per share, representing an immediate dilution per share of $5.45 to individuals exercising Class D Warrants assuming the prior exercise of all Class C Warrants. Dilution per share represents the difference between the exercise price and the pro forma net tangible book value per share after the exercise of the Warrants.

The following table illustrates the per share dilution to be incurred by individuals exercising the Class C Warrants and Class D Warrants assuming all Warrants are exercised:

<TABLE>
<CAPTION>

	Class C Warrants	Class D Warrants(2)
<S>	<C>	<C>
Exercise price	$ 6.50	$ 8.75
Net tangible book value per share before exercise of Warrants	.52	.52
Increase per share attributable to exercise of Warrants	.93	2.78
Pro forma net tangible book value after exercise (1)	1.45	3.30
Dilution to new investors	$ 5.05	$ 5.45

</TABLE>

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(1) Assumes the entire exercise price, less expenses of the Offering, is allocated to the Common Stock obtained upon exercise.

(2) Assumes prior exercise of all of the Class C Warrants.

USE OF PROCEEDS

Holders of Warrants are not obligated to exercise their Warrants and there can be no assurance that such holders will choose to exercise all or any of their Warrants. Furthermore, the Company is unable to predict the timing, if ever, of the exercise of any of the above securities, although they are likely to be exercised at such time as the market price of the Common Stock is substantially above the exercise price of the Warrants. In the event that all of the 2,006,073 outstanding Class C Warrants are exercised, the net proceeds to the Company would be approximately $12,303,000 after deducting the expenses of the offering and assuming payment of the Solicitation Fee. In the event that all of the 2,510,927 outstanding Class D Warrants and 2,006,073 Class D Warrants issuable upon exercise of the outstanding Class C Warrants are exercised, the Company would receive additional net proceeds of approximately $49,850,000 after deducting the expenses of the offering and assuming payment of the Solicitation Fee. The net proceeds received upon the exercise of the Warrants will be used for research and development and general corporate purposes.

The foregoing represents the Company's best estimate of the allocation of the net proceeds received upon exercise of the Class C Warrants and the Class D Warrants based upon the current status of its business operations, its current plans and current economic conditions. Future events, including the problems, delays, expenses and complications frequently encountered by early stage companies as well as changes in competitive conditions affecting the Company's business and the success or lack thereof of the Company's marketing efforts, may make shifts in the allocation of funds necessary or desirable.

Prior to expenditure, the net proceeds will be invested in high-liquidity, United States government and corporate obligations, interest-bearing money market funds and other financial instruments.

CAPITALIZATION

The following table sets forth the actual and as adjusted capitalization of the Company as of December 31, 1998. This table should be read in conjunction with the Financial Statements and Notes thereto included elsewhere in this Prospectus.

<TABLE>
<CAPTION>

	Actual	As Adjusted (1)(2)	As Adjusted (1)(3)
<S>	<C>	<C>	<C>
STOCKHOLDERS' EQUITY			
Preferred stock--$.01 par value; 10,000,000 shares authorized; Series A Convertible Preferred Stock, 746,864 shares issued and outstanding actual and as adjusted	7,000	7,000	7,000
Common Stock--$.01 par value; 30,000,000 shares authorized, 10,209,844 shares issued and outstanding actual (1)	102,000	122,000	167,000
Additional paid-in capital	23,785,000	36,067,000	73,570,000
Accumulated deficit	(17,832,000)	(17,832,000)	(17,832,000)
Total stockholders' equity	6,062,000	18,365,000	55,912,000
Total capitalization	$ 6,062,000	18,365,000	55,912,000

</TABLE>

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(1) Does not include the possible issuance of (i) 1,797,300 shares reserved for issuance upon exercise of options granted or available for grant under the 1992 Plan and the 1996 Plan; (ii) 318,088 shares of Common Stock issuable upon exercise of the Bridge Warrants; (iii) 746,864 shares issuable upon conversion of the Series A Preferred Stock; (iv) 800,000 shares issuable upon exercise of the IPO Unit Purchase Option and underlying Warrants; (v) 335,540 shares issuable upon the Private Placement Warrants; (vi) and aggregate of 201,300 shares issuable upon exercise of the Private Placement Unit Option and underlying Warrants; (vii) 175,000 shares of Common Stock issuable upon exercise of options and warrants granted as compensation for professional services and (vii) 36,000 shares of Common Stock issuable upon the exercise of warrants granted for research and development. See "Management," "Certain Transactions," "Description of Securities" and "Bridge Financings."

(2) Gives effect to the exercise of 2,006,073 outstanding Class C Warrants at $6.50 per Warrant, the application of the net proceeds therefrom, and assumes that the Solicitation Fee is paid on each Warrant Exercise. See "Plan of Distribution."

(3) Gives effect to the exercise of 2,006,073 outstanding Class C Warrants at $6.50 per Warrant, 4,517,000 Class D Warrants at $8.75 per Warrant, the net proceeds therefrom, and assumes that the Solicitation Fee is paid on each Warrant Exercise. See "Plan of Distribution."

SELECTED FINANCIAL DATA

The following selected financial data has been derived from the Company's audited financial statements. The Company's Financial Statements for the years ended December 31, 1998 and 1997, including the Notes thereto which have been audited by Richard A. Eisner & Company, LLP, independent auditors, are included elsewhere in this Prospectus. The following data should be read in conjunction with such Financial Statements and "Plan of Operation."

STATEMENT OF OPERATIONS DATA

<TABLE>
<CAPTION>

	Year Ended December 31,	
	1998	1997
<S>	<C>	<C>
Revenue (1)	$ 1,183,000	$ --
Research and development expenses	1,692,000	$ 1,469,000
General and administrative expenses	2,500,000	1,888,000
Net interest expense (income)	(281,000)	(105,000)
Net (loss)	(2,728,000)	(3,252,000)
Net (loss) per share of common		

stock	$ (.30)	$ (.42)
Weighted average number of shares	9,742,000	8,268,000

</TABLE>

<TABLE>
<CAPTION>

At December 31, 1998

BALANCE SHEET DATA:

	Actual	As Adjusted(2)	As Adjusted(3)
<S>	<C>	<C>	<C>
Working capital	$ 6,227,000	$ 18,530,000	$ 56,077,000
Total assets	7,746,000	20,049,000	57,596,000
Total liabilities	1,684,000	1,684,000	1,684,000
Accumulated deficit	(17,832,000)	(17,832,000)	(17,832,000)
Total stockholders' equity ...	6,062,000	18,365,000	55,912,000

</TABLE>

(1) Through June 1998, the Company has not generated any sales revenues.

(2) Gives effect to the exercise of only the 2,006,073 Class C Warrants, the application on the net proceeds therefrom, and assumes that a Solicitation Fee is paid to JMA on each Warrant Exercise. See "Plan of Distribution."

(3) Gives effect to the exercise of the 2,006,073 Class C Warrants, the 4,517,000 Class D Warrants, the application on the net proceeds therefrom, and assumes that a Solicitation Fee is paid to JMA on each Warrant Exercise. See "Plan of Distribution."

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company was organized and commenced operations in September 1991, and until July 1998, was in the development stage. To this day, the Company's efforts have been principally devoted to research and development activities and organizational efforts, including the development of products for the treatment of cancer and infectious diseases, recruiting its scientific and management personnel and advisors and raising capital.

The Company's plan of operation for the next 12 months will consist of research and development and related activities aimed at:

- Continued collaboration with Bristol-Myers Squibb on the development of Paclitaxel production from Fermentation and Paclitaxel-specific genes. See "Business--Research and Development Programs--Paclitaxel Fermentation Production System Program."

- Further development of the Paclitaxel treatment of polycystic kidney disease, a potential new Paclitaxel indication, and establishing a strategic partnership. See "Business - Research and Development

Programs - Polycystic Kidney Disease."

- o Development of its rational drug design program using Quantum Core Technology(TM). See "Business - Research And Development Programs - Quantum Core Technology(TM)."

- o Evaluation of potential new proprietary microbial anticancer drugs with Bristol-Meyers Squibb. See "Collaborative Agreements - Bristol-Myers Squibb."

- o Further development of a diagnostic test using the patented LCG gene and related MAb to test in vitro serum, tissue or respiratory aspirant material for the presence of cells which may indicate a predisposition to, or early sign of, lung or other cancers. See "Business--Human Gene Discovery Program/Lung Cancer Program."

- o Further testing of peptide from UCLA for inhibition of breast cancer via steroid receptors. See "Collaborative Agreements - UCLA License Agreements."

- o Further analysis of the TNF-PEG technology as an anti-cancer agent in animal studies. See "Business--Research and Development Programs--Other Programs--TNF-PEG: Broad Range Anticancer Drug Program."

- o Testing proprietary vectors which have been constructed for the expression of specific proteins that may be utilizable for vaccines for different diseases using Mycobacteria. See "Business -Research and Development Programs--Other Programs Vaccine Program."

- o Further development and potential marketing of the anti-sense technology currently being conducted at the University of Texas at Dallas. See "Business--Research and Development Programs--Other Programs--Anti-sense Therapeutics Program."

- o Developing a humanized antibody specific or peptide specific for the protein associated with the LCG gene and, if successful, submission of an IND for clinical trials. See "Business--Research and Development Programs--Human Gene Discovery Program/Lung Cancer Program."

- o Making improvements to the Company's laboratory facilities and corporate facilities.

- o Hiring additional research technicians and a financial vice president.

- o Seeking to establish strategic partnerships for the development, marketing, sales and manufacturing of the Company's proposed products. See "Business--Manufacturing and Marketing."

The actual research and development and related activities of the Company may vary significantly from current plans depending on numerous factors, including changes in the costs of such activities from current estimates, the results of the Company's research and development programs, the results of clinical studies, the timing of regulatory submissions, technological advances, determinations as to commercial potential and the status of competitive products. The focus and direction of the Company's operations will also be dependent upon the establishment of collaborative arrangements with other companies, the availability of financing and other factors.

The Company incurred net losses of $2,890,000, $3,252,000 and $2,728,000 for the twelve months ended December 1996, 1997 and 1998, respectively. The increase in net losses from 1996 to 1997 was attributable to decrease in interest income and an increase in general and administrative expenses. The decrease from 1997 to 1998 was attributable to revenue received from the Bristol-Myers Squibb License and R&D Agreements and an increase in interest income, partially offset by an increase in research and development expenses and general and administrative expenses. The Company expects to incur additional losses in the foreseeable future.

The Company incurred general and administrative expenses of $1,530,000, $1,888,000 and $2,500,000 for the twelve months ended December 1996, 1997 and 1998, respectively. The increase from 1996 to 1997 was attributable to increased legal and professional fees, as well as, increased consulting fees and travel expenses. Included in general and administrative expenses for 1997 was a non-cash charge of $133,000 related to the valuation of stock options issued to consultants of the Company. The increase from 1997 to 1998 was attributable to increased legal and professional fees, including increased patent expenses, as well as, increased insurance costs, increased public relations and financial relations expenses, partially offset by a decrease in consulting fees and a decrease in travel and lodging expenses. Included in general and administrative expenses for 1998 was a non-cash charge of $197,000 related to the valuation of stock options issued to consultants of the Company.

The Company incurred research and development expenses of $1,576,000, $1,469,000 and $1,692,000 for the twelve months ended December 1996, 1997 and 1998, respectively. The decrease from 1996 to 1997 was attributable to the completion of the Company's funding obligation to RDI partially offset by increased expenses for contract research and development at Washington State University and increased rent expenses. The increase from 1997 to 1998 was attributable to increased funding for the research programs at Washington State University and Research & Development Institute, Inc., an increase in contract labor costs and an increase in license fees, partially offset by a decrease in laboratory supply expenses.

In April 1998, the Company received net proceeds of approximately $4,837,000 from the sale of 56 Units consisting of 671,026 shares of Common Stock and Class E Warrants to purchase 335,540 shares of Common Stock at exercise prices per share from $9.82 to $11.35, subject to adjustment upon the occurrence of certain events. During the year ended December 31, 1998, the Company also received proceeds of approximately $2,630,000 from the exercise of options and warrants. The Company believes that it has sufficient capital to finance the Company's plan of operation in excess of 12 months. However, there can be no assurance that the Company will generate sufficient revenues, if any, to fund its operations after such period or that any required financings will be available, through bank borrowings, debt or equity offerings, or otherwise, on acceptable terms or at all.

BUSINESS

GENERAL

Cytoclonal Pharmaceutics Inc., a Delaware corporation ("CPI" or the "Company"), is a biopharmaceutical company focusing on the development of diagnostic and therapeutic products for the identification, treatment and prevention of cancer and infectious diseases. To date, the Company has been involved solely in research and development activities relating to several products that are at various stages of development. The Company's research and development activities relate principally to its proprietary Paclitaxel Fermentation Production System, its diagnostic and imaging lung cancer products, Human Gene Discovery Program, Quantum Core Technology(TM) - the Company's rational drug discovery program and its Vaccine program. Taxol(R) (the brand name for Paclitaxel) has been designated by the National Cancer Institute as the most important cancer drug introduced in the past decade.

The Company's strategy is to focus on its (i) collaboration with Bristol-Myers Squibb Company, Inc. ("Bristol-Myers Squibb") on the development of Paclitaxel production from Fermentation and Paclitaxel-specific genes; (ii) Paclitaxel Fermentation Production System program since Paclitaxel has been approved by the FDA as a treatment for refractory (treatment resistant) breast cancer, ovarian cancer, Kaposi's Sarcoma and lung cancer; (iii) Treatment for Polycystic Kidney Disease using Paclitaxel; (iv) Quantum Core Technology(TM) for mechanism-based drug design; (v) Human Gene Discovery Program, including a proprietary cancer related gene ("LCG gene") and related monoclonal antibody

("MAb"), addressing the need for diagnosis and treatment of lung cancer, the second most common form of cancer; (vi) Vaccine program and (vii) antiestrogen peptide for breast cancer. Other programs which involve anti-sense therapeutics, tumor necrosis factor - polyethylene glycol ("TNF-PEG"), fusion protein ("IL-T") and potential anti-leukemia drug ("IL-P") are being pursued at modest levels. These other programs may serve as platforms for future products or alternatives to the primary programs if unforeseen problems develop. In addition, several of the technologies under development are complementary and could possibly potentiate each other.

The Company was created in 1991 to acquire rights to certain proprietary cancer and viral therapeutic technology ("Wadley Technology") developed at the Wadley Institutes in Dallas, Texas ("Wadley"). Through its own research and development efforts and agreements with other research institutions and biotechnology companies, the Company has acquired and developed additional proprietary technology and rights. However, to date, the Company has not developed any commercial products and will require significant additional financing to complete development and obtain regulatory approvals for its proposed products which, if ever received, can take several years. See "-Collaborative Agreements-WadTech."

In June 1993, the Company received an exclusive worldwide license (the "RDI Agreement") to use patented fungal technology to synthesize Paclitaxel, the active ingredient in Taxol(R) (the "Microbial Paclitaxel Technology"), from the Research & Development Institute, Inc. at Montana State University ("RDI") . Paclitaxel has proven to be effective in treating refractory ovarian and breast cancers and, in preliminary clinical trials, has shown potential in treating refractory non-small cell lung cancer ("NSCLC") and certain other cancer indications. Presently, Paclitaxel is made from the inner bark and needles of the slow-growing Pacific yew tree. Scientists at the Company, in cooperation with the inventors of the microbial paclitaxel technology, are using this technology and fermentation technology to develop a system for manufacturing Paclitaxel in commercial quantities and at lower costs than currently available production methods. In 1994, a patent covering the original fungal strain that produces Paclitaxel issued. In March 1999, a broad patent issued for the production of Paclitaxel by utilizing the technology licensed to the Company pursuant to the RDI Agreement to isolate microorganisms from the slow growing Pacific yew tree. See "-Research and Development Programs-Paclitaxel Fermentation Production System Program."

In February 1996, the Company obtained exclusive rights to a technology and pending patent developed at the University of California at Los Angeles ("UCLA") for the Paclitaxel treatment of Polycystic Kidney Disease. The patent issued in 1998. See "-Research and Development Programs-Polycystic Kidney Disease" and "-Collaborative Agreements-UCLA Agreements."

In June 1996, the Company entered into a Patent License Agreement (the "Regents Agreement") with the Board of Regents of the University of Texas System ("Regents") whereby the Company received an exclusive royalty-bearing license to manufacture, have manufactured, use, sell and sublicense products related to a U.S. Patent Application entitled "A Method for Ranking Sequences to Select Target Sequence Zones of Nucleus Acids." The technology has identified optimum regions within genes to bind anti-sense products. Anti-sense products are under development to control genes involved in human diseases such as cancer, diabetes, or AIDS. A patent

application had been filed on this technology and patent was issued in 1999. This discovery potentially has broad applications to many human and viral genes involved in human disease. See "-Collaborative Agreements-University of Texas."

In July 1996, the Company entered into an agreement (the "WSURF Agreement") with the Washington State University Research Foundation ("WSURF") whereby the Company received an exclusive, world-wide license to use and/or sublicense patented technology or prospective patented technology (the "WSURF Technology") related to genes and the associated gene products, including the enzymes, in the biosynthetic pathway for Paclitaxel from the yew tree. The genes will be used to further optimize the Paclitaxel Production System. See "-Collaborative Agreement-WSURF."

In June 1998, the Company entered into a Master License Agreement (the "BMS License Agreement") and a Sponsored Research Agreement (the "R&D Agreement") with Bristol-Myers Squibb. Pursuant to the BMS License Agreement, the Company granted to Bristol-Myers Squibb an exclusive sublicense under each of the (i) the RDI Agreement (the "BMS-RDI Sublicense Agreement") and (ii) the WSURF Agreement. The R&D Agreement contemplates a program directed toward developing microbial fermentation and genetic engineering technologies for the production of Paclitaxel and other taxanes. See "-Collaborative Agreement-Bristol-Myers Squibb."

In August 1998, the Company obtained exclusive world-wide rights to a technology and pending patent developed at UCLA for a peptide antiestrogen breast cancer therapy for a term of the life of the patent, subject to termination in certain circumstances.

In December 1998, the Company obtained an exclusive license to technology for the fungal production of Telomerase, the so-called "immortality enzyme," from RDI.

Effective January 4, 1999, the Company acquired proprietary technology for rational based drug design developed by Dorit Arad, Ph.D. and employed Dr. Arad as Vice President of Drug Design.

The Company was originally incorporated in the state of Texas in September 1991 as Bio Pharmaceutics, Inc. In November 1991, the Company changed its name to Cytoclonal Pharmaceutics Inc. The Company was reincorporated in Delaware by merger into a wholly-owned Delaware subsidiary in January 1992.

RESEARCH AND DEVELOPMENT PROGRAMS

MICROBIAL PACLITAXEL PRODUCTION SYSTEM PROGRAM

Scientists at the Company in collaboration with the inventors of the microbial Paclitaxel technology (the "Microbial Paclitaxel Technology"), have developed a system for the production of Paclitaxel (the "Paclitaxel Fermentation Production System") utilizing microbial fermentation. Microbial fermentation is considered one of the most cost effective systems for drug production. The Company has established agreements with Bristol-Myers Squibb to develop microbial fermentation for the commercial production of Paclitaxel.

Presently, Paclitaxel is made from the inner bark and needles of the slow-growing Pacific yew tree. Supplies of Paclitaxel are limited and expensive. The Microbial Paclitaxel Technology licensed by RDI to the Company pursuant to the RDI Agreement utilizes Paclitaxel producing micro-organisms, such as the fungus Taxomyces andreanae. This fungus was initially isolated from a Pacific yew tree and has been adapted to grow independently from the yew tree utilizing fermentation processes. Detailed chemical analysis of the Paclitaxel produced by the fungus indicates chemical equivalency to Taxol(R) produced from the Pacific yew tree; Science, 260, 214-216 (1993). Additional micro-organisms have been isolated and are under development.

The Paclitaxel producing fungus was discovered by Dr. Gary Strobel from Montana State University ("MSU"), Dr. Andrea Stierle from MSU and Montana College of Mineral Science and Technology ("MCMST") and Dr. Donald Stierle of MCMST. Dr. Stierle and Dr. Strobel assigned their rights to the Microbial Paclitaxel Technology to RDI, a non-profit corporation which manages intellectual property for MSU and MCMST. RDI was issued a U.S. patent on the Microbial Paclitaxel Technology on June 21, 1994 covering the method of isolating the fungus which produces Paclitaxel, the use of the fungus to make Paclitaxel, and the method of producing Paclitaxel from the fungus. In June 1993, RDI and the Company entered into the RDI Agreement whereby RDI granted the Company worldwide exclusive rights to the Microbial Paclitaxel Technology and technologies related thereto. It has been reported that over ten companies, including several major pharmaceutical companies, were competing to license this technology. In March 1999, a broad patent issued for the production of Paclitaxel by microorganisms isolated from the slow growing Pacific yew tree utilizing the technology licensed to the

Company pursuant to the RDI Agreement. The Company believes that the experience of Dr. Arthur P. Bollon, the Company's Chairman, President and Chief Executive Officer, in the area of fungi, which originated from his Post-Doctoral Fellowship at Yale University, combined with the research and development activities of the Company in anti-cancer products, contributed to the Company obtaining the Microbial Paclitaxel Technology. See "-Collaborative Agreements-RDI" and "Management."

The Paclitaxel Fermentation Production System also produces certain compounds called Taxanes which can be precursors to Paclitaxel or related compounds like Taxotere. These compounds are under investigation by several entities, including Rhone-Poulenc Rorer Pharmaceuticals, Inc., which is using Taxotere as a therapeutic for use in the treatment of lung cancer.

Development efforts are continuing with respect to the Paclitaxel Fermentation Production System with the goal of generating commercial quantities of Paclitaxel at reduced costs. Scientists at the Company, in conjunction with the inventors of the Microbial Paclitaxel Technology, have increased the level of Paclitaxel production over 3,000 fold from the initial levels of production under the Paclitaxel Fermentation Production System. Media, growth conditions and strain improvements continue to be used to improve the Paclitaxel Fermentation Production System. The Company's participation in this development program is under the direction of Dr. Rajinder Sidhu, Director of the Company's Fungal Paclitaxel Program, and Dr. Bollon.

Furthermore, in July 1996, the Company and WSURF entered into the WSURF Agreement therein WSURF granted the Company the exclusive rights to a gene isolated from the Yew tree by Dr. Rodney Croteau. The gene codes for the enzyme Taxadiene Synthase which is involved in a critical step for Paclitaxel production and the gene and other paclitaxel genes isolated by Dr. Croteau are expected to be utilized to further increase the efficiency of Paclitaxel synthesis by fermentation. Manipulation of genes by genetic engineering have greatly improved production of pharmaceutical products such as antibiotics and human interferon and insulin.

The NCI has recognized Taxol(R) as one of the most important cancer drugs discovered in the past decade. Paclitaxel, although not a cure for cancer, promotes the assembly of cellular microtubules to render fast growing cells, such as cancer cells, unable to divide and proliferate. This mode of action is in contrast to most cancer drugs which target the cell nucleus or DNA. Paclitaxel has proven to be effective in treating refractory (treatment-resistant) ovarian and breast cancers, and forms of lung cancer and certain other cancers. Due to its different mode of action, Paclitaxel is being tested in combination therapy with other cancer therapeutic drugs.

Evidence to date has shown that Paclitaxel is generally well tolerated by patients with reduced side effects compared to other chemotherapy treatments. Considering that no currently available anti-cancer agents are free from toxicity, Paclitaxel's comparatively safety profile suggests substantial improvements in quality of life for patients who must undergo chemotherapy. Nevertheless, hypersensitivity reactions and other side effects have been noted during Paclitaxel administration. Reactions are characterized by transient hypotension and an allergic type response, which appear to cease upon stopping drug administration. Premedication effectively minimizes or eliminates this problem, although side effects may nevertheless limit some patients' use of Paclitaxel. In addition, Paclitaxel has been shown to produce peripheral neuropathy (loss of sensation or pain and tingling in the extremities) and neutropenia (low white blood cell counts), which also may, in certain cases, limit some patients' use of Paclitaxel.

In June 1991, the NCI formalized a Collaborative Research and Development Agreement ("CRADA") for development of Taxol(R) with Bristol-Myers Squibb as its pharmaceutical manufacturing and marketing partner. This CRADA had granted Bristol-Myers Squibb the exclusive use, until December 1997, of NCI's clinical data relating to Paclitaxel in seeking approval from the FDA, which significantly shortened the approval process and prevented any other party from obtaining FDA approval using the NCI data. Although Bristol-Myers Squibb has since lost its right of exclusivity under the CRADA, effective Paclitaxel

exclusivity is still being maintained by Bristol-Myers Squibb due to a patent on its Taxol(R) infusion method, that exclusivity currently being contested by other competitors in the courts. Bristol-Myers Squibb received FDA approval for the commercial sale of its Taxol(R) as a treatment for refractory ovarian cancer in December 1992, refractory breast cancer in April 1994 and Kaposi's Sarcoma in August 1997. In 1998, Bristol-Myers Squibb received approval for Taxol(R) treatment of lung cancer. Since December 1992, Bristol-Myers Squibb has been the sole source of Taxol(R) for commercial purposes. It is the Company's understanding that Bristol-Myers Squibb is currently conducting clinical trials required for FDA approval of Taxol(R) for treating other cancers. See "-Competition."

Alternative production systems for Paclitaxel, such as plant cell culture, complete synthesis and improved processing of yew tree material, are under investigation by others and there can be no assurance that such alternative methods will not be developed prior to the Company's proposed method or that they will not prove more efficient and cost effective than the method being developed by the Company.

POLYCYSTIC KIDNEY DISEASE

In February 1996, the Company entered into two license agreements with the Regents of UCLA therein granting the Company exclusive rights to: (i) a pending patent, entitled "Inhibition of Cyst Formation By Cytoskeletal Specific Drugs" that makes use of various drugs, one of which is Paclitaxel and (ii) technology in the field of Pharmacological Treatment for Polycystic Kidney Disease. See "-Collaborative Agreements-UCLA."

Approximately 500,000 individuals in the U.S. and 5 million individuals world-wide are afflicted with Polycystic Kidney Disease ("PKD"). There is no treatment except management by dialysis or transplantations. Dr. David Woo of UCLA has shown in an animal model system that Taxol(R) inhibits cyst enlargement, resulting in increased survival of treated animals. The Company, in collaboration with Dr. Woo, is attempting to develop, although there can be no assurance of successful completion, if any, this potential new use of Taxol(R). There can be no assurance that the Company will be able to perform human clinical studies for Taxol(R) treatment or, if performed, such studies will be successful. Also, a patent for treatment of PKD by Taxanes, such as Paclitaxel, issued in 1998. The Company is currently in negotiations with potential strategic partners for Paclitaxel treatment of PKD. However, there can be no assurances that such negotiations will be successful. See "-Collaborative Agreements-UCLA."

QUANTUM CORE TECHNOLOGY(TM)

In connection with the Company's employment of Dorit Arad, Ph.D. as Vice President of Drug Design in January 1999, the Company acquired rights to certain proprietary molecular scaffolds and technology for the mechanism-based design of novel protease inhibitors as well as certain anti-cancer and anti-viral agents developed by Dr. Arad at Tel Aviv University in Tel Aviv, Israel. The design of mechanism-based protease regulators is built upon an understanding of the target structure and chemical mechanism. Unlike structure-based rational drug design and combinatorial chemistry where large numbers of molecules based upon known substrate structure, with non-selective chemistry, may be screened for high affinity binding and/or activity, the Company begins with an "active" core or scaffold of low molecular weight known to be mechanism specific. Affinity maturation to optimize enzyme binding (selectivity) is then achieved by standard combinatorial chemistry approaches. Through its own proposed research and development efforts as well as through potential future collaborative agreements with research institutions and other pharmaceutical companies, the Company anticipates, although there can be no assurance, developing additional proprietary technology to serve as the basis for the eventual introduction of commercial products. Commercial development of these products will require significant additional financing for completion of

development, clinical studies and obtainment of regulatory approvals. See "Management."

HUMAN GENE DISCOVERY PROGRAM/LUNG CANCER PROGRAM

The Company's Human Gene Discovery Program focuses on identifying and isolating human genes by utilizing biological markers employing MAbs and analyzing cellular activities associated with the cause or treatment of various diseases. Genes play an important role in the development of a variety of therapeutics, diagnostics and other products and services. Proteins expressed by genes are the targets of many drugs. As a result, the identification of proteins can play an important role in the development of drugs and drug screens. The identification of genes that code for proteins that may be missing or defective can enable the development of therapeutics for genetic diseases. In addition, identification of genes that may predispose a person to a particular disease may enable the development of diagnostic tests for the disease.

One of the central features of the Company's Human Gene Discovery Program is its proprietary human gene expression libraries and its RetroselectionTM approach to isolating human genes with a defined function. Currently, these libraries consist of over 50,000 human gene clones isolated by the Company through extracting expressed messenger RNA from human tissue and cells in different development stages and in normal and diseased states. By comparing the genes expressed from tissue in different physiological states (e.g., diseased and normal), the Company hopes to identify genes that are expressed during different stages of a disease and that could serve as components of diagnostic tests or as targets for therapeutic drugs. Thus, the Company's Human Gene Discovery Program concentrates on gene products with associated biological or medical use as opposed to only DNA sequences. At present, the Company is focusing on creating MAb and DNA probes products for diagnostic and imaging applications.

The Company is developing a proprietary MAb (the "LCG MAb") which recognizes a specific protein (the "LCG protein") on the surface of some lung cancer cells, such as NSCLC, which is believed to represent approximately 65% of lung cancers. In addition, the cancer related human gene ("LCG gene") that makes this surface protein, has been isolated by the Company's scientists by a process the Company calls "Retroselection." The specificity of the LCG protein to some lung cancers is based on studies on biopsy material, biodistribution studies on animal model systems and Phase I clinical trials. A U.S. patent for the LCG gene, filed by the Company in July 1994, was issued on December 31, 1996. A patent for the lung cancer gene marker issued in June 1998.

The LCG gene and LCG MAb are being developed by the Company as a potential diagnostic product to test in vitro serum, tissue or respiratory aspirant material for presence of cells which may indicate a predisposition or early sign of lung cancer. The LCG MAb is also being developed as an in vivo imaging agent for lung cancer. An imaging agent may assist physicians in establishing the location of a cancer and determine whether the cancer has spread to other sites in the body. In Phase I human clinical trials performed at Wadley, the LCG MAb made from mouse cells and labeled with a radioactive marker showed strong specificity in 5 of 6 patients. In these trials, the LCG MAb bound to the lung cancer but was not detectable for normal lung cells. These clinical studies will be expanded with a human-related form of the LCG MAb which is presently under development by the Company. Working with cells in culture, the Company is studying whether the LCG gene itself may be potentially useful as a genetic probe to test for the presence of the LCG gene expression where the LCG protein has not been made or has been made at low levels.

Additional potential products under development using the LCG gene and LCG MAb are products for the delivery of therapeutic drugs, such as Paclitaxel and TNF-PEG, to the cancer. The involvement of the LCG gene in the formation and metabolism of the lung cancer is also under investigation. In addition, the LCG protein could possibly be used as an antigen for a vaccine against NSCLC. The Company has deferred plans to initiate testing in animal model systems and

conducting clinical trials since successful development of vaccine applications will take significant additional research and development efforts and expenditures.

The Human Gene Discovery Program is also being used to isolate additional novel cancer related genes utilizing specific MAbs for breast and ovarian cancer and melanoma which are proprietary to the Company. A U.S. patent for the melanoma MAb was issued to WadTech and assigned to the Company. A U.S. patent for a melanoma antigen issued to the Company in August, 1997. See "-Collaborative Agreements-WadTech."

The Human Gene Discovery Program is conducted under the direction of Dr. Richard Torczynski, along with Dr. Bollon. Dr. Torczynski and Dr. Bollon have extensive experience isolating human genes including IFN-WA, a novel interferon, and the LCG gene. The human-related form of the LCG MAb is under the direction of Dr. Susan Berent.

OTHER PROGRAMS

In addition to its Paclitaxel Fermentation Production System Program, Paclitaxel treatment of Polycystic Kidney Disease and Human Gene Discovery Program/Lung Cancer Program, the Company is pursuing other programs at modest levels which may serve as platforms for the development of future products or alternatives to such primary programs. These include the (i) Vaccine Program, (ii) Anti-sense Therapeutics Program, (iii) TNF-PEG: Broad Range Anti-cancer Drug Program, (iv) IL-T: Prevention of Radiation and Chemotherapy Damage Program and (v) IL-P Anti-leukemic Product Program.

Vaccine Program. The main objective of the Company's vaccine program is to develop genetically engineered live vaccines for diseases that are life threatening. The Company's current strategy consists of (i) identifying bacterial host strains that are best suited for delivering recombinant immunogens and cancer markers; (ii) developing proprietary cloning and expression vectors that can transfer, maintain and express recombinant immunogens and cancer markers in the delivery system; and (iii) cloning genes for specific immunogens or cancer markers into the vectors and testing the vaccine system in appropriate animal models and, if successful, commencing clinical trials.

The Company has identified three host strains of mycobacteria that appear well suited for expressing and delivering protein and lipid antigens. Furthermore, the Company has constructed plasmid and phage-based cloning vectors and developed reproducible transformation techniques for the host strains. These vectors have large cloning capacities and are highly efficient in transformation. Potential antigens for cancer markers are the proprietary LCG gene and other cancer genes for breast cancer and melanoma which are under development by the Company. The Company's goal is to license, as licensor and licensee, new cancer specific marker genes and

to enter into strategic partnerships to develop vaccines for infectious diseases, such as tuberculosis.

These vaccine studies are under the direction of Dr. Labidi, who is director of the Company's vaccine program. Dr. Labidi, who received his Ph.D. in Microbiology from the Pasteur Institute, in Paris, France, was one of the early investigators to establish the plasmid profile of several mycobacterium species and was the first to isolate, characterize and sequence the mycobacterium plasmid pAL5000 which has contributed to mycobacterium cloning and expression vectors. Working with the Company and Dr. Labidi is Dr. Hugo David, a consultant to the Company and a member of its Scientific Advisory Board. Dr. David was formerly the head of the tuberculosis program at the Center for Disease Control (CDC) in the U..S. and at the Pasteur Institute.

Anti-sense Therapeutics Program. Anti-sense has the potential of regulating genes involved in various disease states. The Company is sponsoring anti-sense research and development under the direction of Dr. Gray, Professor

of Molecular and Cell Biology at University of Texas at Dallas. The Company had a right of first refusal for an exclusive worldwide license for the technology developed in connection with these research activities, which rights the Company exercised in June 1996 and has obtained an exclusive world-wide license for certain anti-sense technology developed by Dr. Gray. Pursuant to this program, Dr. Gray has developed, and a patent application had been submitted and a patent issued in 1999 therein covering proprietary technology which may improve the efficiency of anti-sense reagents potentially applicable to a broad spectrum of diseases. The capability has recently been computerized, which will be contained in a related patent continuation-in-part. See "-Collaborative Agreements-University of Texas."

TNF-PEG: Broad Range Anti-cancer Drug Program. TNF is a natural immune protein (cytokine) made by human cells. It has been found to kill in vitro a high percentage of different cancer cells compared to normal cells and is one of the most potent anti-cancer agents tested in animals. The Company has TNF technology, including TNF analogs, which the Company believes are proprietary and which were developed at Wadley utilizing a genetically engineered bacteria and developed further by Lymphokine Partners Limited, a partnership set up by an affiliate of Wadley and Phillips Petroleum Company (the "Wadley/Phillips Partnership"). The Company acquired this technology from Wadley Technologies, Inc. ("WadTech"). Phase I and II human clinical trials were performed at Wadley using 23 patients with different kinds of cancer. These studies, as well as studies on TNF technology developed by others, showed no therapeutic benefit from TNF in humans because of the high toxicity of TNF at therapeutic doses and its relatively short half life (approximately 30 minutes) at lower doses. See "-Collaborative Agreements-WadTech."

Pursuant to a research collaboration (the "Enzon Agreement") with Enzon, Inc. ("Enzon"), the Company and Enzon are developing an anti-cancer agent combining the Company's TNF technology with Enzon's patented polyethylene glycol ("PEG") technology. The PEG process involves chemically attaching PEG, a relatively non-reactive and non-toxic polymer, to proteins and certain other biopharmaceuticals for the purpose of enhancing their therapeutic value. Attachment of PEG helps to disguise the proteins and to reduce their recognition by the immune system, thereby generally lowering potential immunogenicity. Both the increased molecular size and lower immunogenicity result in extended circulating blood life, in some cases from minutes to days. The PEG technology is a proven technology covered by patents held by Enzon. To the Company's knowledge, Enzon has two products on the market using PEG, PEG-adenosine deaminase, for treatment of the immune deficiency disease know as the "bubble boy" syndrome, and PEG-Asparaginase, a cancer chemotherapeutic drug. In preliminary animal studies at Sloan-Kettering Institute for Cancer Research ("Sloan-Kettering"), a TNF-PEG construct has been tested in an animal cancer model system and was shown to kill tumors with possibly reduced toxicity. The results of these studies will be confirmed and expanded and, if the TNF-PEG does result in longer half life and reduced toxicity, an investigational new drug ("IND") application for clinical trials is expected to be submitted by the Company or Enzon. There can, however, be no assurance that similar results will be found in humans. The Enzon Agreement also involves directing TNF-PEG to human cancers using Enzon's proprietary single chain antibodies. See "-Collaborative Agreements-Enzon" and "Collaborative Agreements-Sloan Kettering."

The Enzon Agreement involves equal sharing of revenue from sales of TNF-PEG if both parties contribute equally to its development, which is the Company's intention. There can, however, be no assurance that the Company will have the financial resources to meet such obligations. The Enzon Agreement also specifies that Enzon will work with only the Company on the construction of TNF-PEG, unless the Company consents to Enzon working with a third party. See "-Collaborative Agreements-Enzon."

IL-T: Prevention of Radiation and Chemotherapy Damage Program. This program involves a novel protein called IL-T. The Company and the Wadley/Phillips Partnership constructed IL-T through genetic engineering by fusing together parts of two human immune proteins ("cytokines"), Interleukin and TNF. The Company is testing various combinations of cytokines for improved protection against radiation and chemotherapy damage. The IL-T protein has been tested in animal studies for protection against radiation damage at Sloan-Kettering and these studies are expected to continue. Following animal studies confirmation of protection against radiation

damage could potentially lead to filing an IND application with the FDA followed by Phase I clinical trials. Products proprietary to others have shown protection against radiation damage and to potentiate weakened immune cells. The Company has filed a patent application for IL-T. See "-Collaborative Agreements-WadTech" and "-Collaborative Agreements-Sloan-Kettering."

IL-P Anti-Leukemic Product Program. Through its joint venture with Pestka Biomedical Laboratories, Inc. ("Pestka"), the Company is participating in the development of a novel anti-leukemic drug known as ("IL-P"). This research and development involves the application of certain phosphorylation technology developed at Pestka and licensed to the joint venture to Interleukin-2. Various constructs of IL-P have been tested at Pestka and the Company expects to provide additional funding to the joint venture for the continuation of such tests. See "-Collaborative Agreements-Cytomune."

For the fiscal years ended December 31, 1998 and 1997, the Company incurred $1,692,000 and $1,469,000 of research and development expenses, respectively. See "Management's Discussion and Analysis of Financial Condition" and "Financial Statements."

COLLABORATIVE AGREEMENTS

BRISTOL-MYERS SQUIBB

In June 1998, the Company entered into the BMS License Agreement and R&D Agreement with Bristol-Myers Squibb. Pursuant to the BMS License Agreement, the Company granted to Bristol-Myers Squibb an exclusive world-wide sublicense under each of the (i) RDI Agreement and (ii) WSURF Agreement. Pursuant to the BMS License Agreement, Bristol-Myers Squibb has the world-wide exclusive right to utilize the technology licensed to the Company by RDI pursuant to the RDI Agreement to produce, have made and/or sell Paclitaxel (to be commercialized as Taxol(R)) and other taxanes and compounds, although no assurances can be given. Also pursuant to the BMS License Agreement, Bristol-Myers Squibb has the world-wide exclusive right to practice the technology licensed to the Company by WSURF pursuant to the WSURF Agreement to make, have made, use, lease and sell the products covered in the WSURF Agreement, although no assurances can be given. The term of the BMS License Agreement runs, subject to earlier termination in certain circumstances, as to each CPI-Covered Product (as defined) in each country of the Territory (as defined) until the later of (i) ten (10) years from the First Commercial Sale (as defined) of such CPI-Covered Product in such country, or (ii) such time as the making, use or sale at the time by Bristol-Myers Squibb, its affiliates or sublicensees in such country of such CPI-Covered Product would not infringe (a) any U.S. or foreign patents or patent applications, including reissues, renewals, extensions, continuations or continuations-in-part, copyrights or trademarks owned and licensed by RDI to the Company under the RDI Agreement, (b) certain U.S. and foreign patents or patent applications owned by WSURF and licenced by WSURF to the Company under the WSURF Agreement and (c) other licensed property, including Licensed Cell Lines, the Licensed Gene Materials, the Novel Taxanes from Fermentation, the Novel Taxanes from Covered Cell Line, the Licensed CPI-Technology and the Improvements (as those terms are defined in the BMS License Agreement), together with all patent rights pertaining thereto, to the extent that such patent rights are not already part of the RDI Agreement and WSURF Agreement. Bristol-Myers Squibb has the right to terminate the BMS License Agreement, effective upon ninety (90) days notice, in which event the Bristol-Myers Squibb sublicenses under the RDI Agreement and WSURF Agreement would terminate. However, any payment obligations of Bristol-Myers Squibb to the Company pursuant to the BMS License Agreement would survive such termination. See "-General; -Collaborative Agreements-RDI and - -WSURF."

In addition, pursuant to the BMS License Agreement, Bristol-Myers Squibb has the right of first negotiation during the term of the BMS License Agreement to obtain from the Company an exclusive, world-wide right to license or sublease to all or a part of any CPI Technology (as defined) involving Taxol(R) or natural products for anti-cancer treatment from microorganisms. The BMS License Agreement contemplates sales based royalty payments and payments by Bristol-Myers Squibb to the Company against the advent of certain milestones and royalties. See "-General; -Collaborative Agreements-RDI and -WSURF."

The R&D Agreement, renewable by Bristol-Myers Squibb for successive one-year periods thereafter, provided that the BMS License Agreement remains in effect at the time, contemplates a program directed toward developing microbial fermentation and genetic engineering technologies for the production of Paclitaxel and other Taxanes and potentially new anti-cancer products from microorganisms. See "-General; -Collaborative Agreements-RDI and -WSURF."

WADTECH

In October 1991, the Company entered into a purchase agreement with WadTech (the "WadTech Agreement"), whereby the Company acquired certain of WadTech's right, title and interest in and to the Wadley Technology, including technology developed by Wadley, and acquired by WadTech upon dissolution of the Wadley/Phillips Partnership and licensed to WadTech by Phillips Petroleum Company ("Phillips"). The Wadley Technology includes, but is not limited to, technology related to TNF, IL-T, a novel interferon designated IFN-WA, and select melanoma, ovarian, breast, colon and lung cancer MAbs. See "-Research and Development Programs-Human Gene Discovery Program/Lung Cancer Program" and "-Other Programs-TNF/PEG: Broad Anti-cancer Drug Program."

Pursuant to the WadTech Agreement, the Company has agreed to (i) pay WadTech the sum of $1,250,000 (the "Fixed Sum"), (ii) pay WadTech royalties on sales of products incorporating the Wadley Technology and a percentage of all royalties and other consideration paid to the Company by any licensees of the Wadley Technology, all of which are to be applied toward the Fixed Sum, (iii) assume WadTech's obligations under a license agreement entered into in March 1989 between the Wadley/Phillips Partnership and Phillips (the "Phillips Agreement"), namely the obligation to pay royalties of up to 3.75% on sales products produced using Phillips recombinant yeast expression system, and (iv) pay to WadTech minimum annual royalties of $31,250 for the year beginning October 1, 1996, $62,500 for the year beginning October 1, 1997 and $125,000 for each year thereafter. The WadTech Agreement provides that the royalties and other sums payable by the Company to WadTech are at a higher rate until the Fixed Sum has been paid in full. The term of the WadTech Agreement is for 99 years but may be terminated earlier by WadTech if the Company fails to cure a default in its payment obligations or breaches any material term or condition of the agreement. See "-Research and Development Programs-Human Gene Discovery Program/Lung Cancer Program" and "-Other Programs-TNF/PEG: Broad Anti-cancer Drug Program."

In order to secure the Company's obligation to pay the Fixed Sum to WadTech, the Company and WadTech entered into a Security Agreement (the "Security Agreement"), pursuant to which WadTech retains a security interest in all of the Wadley Technology until the Fixed Sum is paid in full to WadTech. The Security Agreement also provides that in the event of a default (which includes failure of the Company to perform any material obligation under the WadTech Agreement), WadTech would have the right to license the Wadley Technology to a third party or sell the Wadley Technology through a foreclosure sale.

RDI

In June 1993, the Company entered the RDI Agreement with RDI, a non-profit entity which manages the intellectual property of MSU and MCMST, therein granting to the Company worldwide exclusive rights to the Microbial Paclitaxel Technology. Pursuant to the RDI Agreement, the Company made an initial payment of $150,000 to RDI and has agreed to pay RDI royalties on sales of products using the Microbial Paclitaxel Technology and a percentage of royalties paid to the Company by sublicensees of the Microbial Paclitaxel Technology, and has paid RDI $25,000 in June 1994, $50,000 in June 1995, $75,000 in June 1996, $100,000 in June 1997 and $100,000 in June 1998, and has agreed to

pay RDI $100,000 each year thereafter that the license is retained. The Company in 1994 also granted to RDI stock options to purchase up to 20,000 shares of the Company's Common Stock at $2.50 per share exercisable over four years, all of which are currently exercisable. The Company and RDI also entered into a Research and Development Agreement (the "Paclitaxel R&D Agreement") effective the date of the RDI Agreement. The Paclitaxel R&D Agreement provides for RDI to perform research and development at MSU relating to the Paclitaxel Fermentation Production System. Pursuant to the Paclitaxel R&D Agreement, the Company has agreed to make payments of $250,000 per year for four years. In 1998, the Company and RDI agreed to a one year renewable extension of the Paclitaxel R&D Agreement. The Company has, to date, paid a total of $1,637,000 under both RDI agreements. In February 1995, the Company and RDI amended the RDI Agreement and Paclitaxel R&D Agreement to include technology applicable to commercial products, in addition to Paclitaxel and Paclitaxel related technology, identified and developed from organisms/products supplied to RDI by Dr. Gary Strobel, Dr. Andrea Stierle and/or Dr. Donald Stierle pursuant to the RDI Agreement and Paclitaxel R&D Agreement. These additional technologies could include, but are not limited to, anti-cancer, anti-viral, anti-fungal or any other activities which could result in any commercial products. In May 1998, the Company and RDI amended the RDI Agreement therein requiring the Company to pay to RDI (i) a percentage of royalties received with respect to the manufacture, use or sale of the inventions by sublicensees, which royalty rate shall be reduced in the event the Company is required to pay royalties to others and (ii) all up-front, milestone and royalty payments it may receive pursuant to certain provisions of the BMS-RDI Sublicense Agreement. See "General" and "-Collaborative Agreements-Bristol Myers Squibb."

In February 1995, the Company entered into a license agreement (the "FTS-2 License Agreement") with RDI, therein granting the Company worldwide exclusive rights to exercise all intellectual property rights relating to a fungal strain identified as "FTS-2" (the "FTS-2 Rights") which contains a cytotoxic activity for a breast cancer line and related activities. In October 1995, the Company entered into a license agreement (the "Tbp-5 License Agreement") with RDI, granting to the Company worldwide exclusive rights to exercise all intellectual property rights relating to a fungal strain identified as "Tbp-5" (the "Tbp-5 Rights" and together with the FTS-2 Rights, the "Intellectual Property Rights") which contains a cytotoxic activity for a breast cancer cell line. Pursuant to the FTS-2 License Agreement and the Tbp-5 License Agreement, the Company has agreed to pay RDI royalties on sales of products or services using the Intellectual Property Rights and a percentage of royalties paid to the Company by sublicensees using the Intellectual Property Rights. See "-Collaborative Agreements-Bristol Myers Squibb."

In December 1998, the Company obtained an exclusive license to technology for the fungal production of Telomerase, the so-called "immortality enzyme," from RDI.

In March 1999, a broad patent issued for the production of Paclitaxel by microorganisms isolated from the slow growing Pacific yew tree utilizing the technology licensed to the Company pursuant to the RDI Agreement.

UCLA LICENSE AGREEMENTS

In February 1996, the Company entered into two license agreements with the Regents of UCLA, therein granting the Company exclusive rights to: (1) a pending patent, entitled, "Inhibition of Cyst Formation By Cytoskeletal Specific Drugs" ("UCLA License Agreement I") that makes use of various drugs, one of which is Paclitaxel and (2) technology in the field of Pharmacological Treatment for PKD ("UCLA License Agreement II"). Pursuant to UCLA License Agreement I, the Company paid a license issue fee of $5,000 and has agreed to pay UCLA $10,000 upon issuance of a patent. Pursuant to the UCLA License Agreement II, the Company paid a license issue fee of $5,000 and has agreed to pay UCLA $5,000 upon issuance of a patent. The Company must pay a yearly license maintenance fee

on both licenses until the Company is commercially selling a product based on the technology derived from UCLA License Agreement I and UCLA License Agreement II, at which time a royalty based on net sales will be due.

In August 1998, the Company entered into an exclusive world-wide license agreement with UCLA ("UCLA Agreement III") for any domestic and foreign patents and patents pending based upon and including any subject matter claimed in or covered by a U.S. patent pending entitled, "Peptide Antiestrogen Compositions and Methods for Treating Breast Cancer," (collectively, the "Patent Rights"). The UCLA Agreement III grants the Company the right to make, use, sell, offer for sale and import certain products involving the Patent Rights (collectively, the "Patent Products") and to conduct any process or method covered by the Patent Rights (the "Patent Methods"). Also, the Company may grant sublicenses to third parties to make, use, sell, offer for sale and import Patent Products and to practice Patent Methods where Patent Rights exist, provided the Company retains exclusive rights thereto under the UCLA Agreement III. The UCLA Agreement III requires the Company to pay up-front fees, fees upon the issuance of a patent application under the Patent Rights, maintenance fees, annual and quarterly royalty payments, and milestone payments. The term of the UCLA Agreement III commenced August 1998 and ends upon the termination or cancellation of the last patent covered by the Patent Rights, subject to earlier termination by the Regents if the Company's fails to perform certain studies and clinical trials by certain dates or cure any breaches within 60 days notice from the Regents.

ENZON

In July 1992, the Company and Enzon entered into the Enzon Agreement providing for the conduct of a collaborative research and development program to develop an anti-cancer agent by combining the Company's TNF technology with Enzon's PEG technology. Pursuant to this agreement, each party agreed to fund its own development costs associated with the initial stage, roughly the first year, of the program. The agreement provides that if both parties agree to continue the TNF-PEG program jointly, each party shall share equally in the cost of such research and development and the profits therefrom. If one party decides not to proceed or is unable to share jointly, the continuing party will receive exclusive (even as to the other party) worldwide licenses in the applicable technology of the other party and will pay the other party royalties. The term of the Enzon Agreement is 15 years for each product developed under the program from the date of FDA approval to market such product. The Company and Enzon also entered into a similar agreement in March 1992 relating

to combining various target proteins to be developed by the Company with Enzon's PEG-technology pursuant to which Enzon funded certain of the Company's initial research and development activities thereunder. To the extent this earlier agreement applied to TNF, it was superseded by the Enzon Agreement. Currently, the primary focus of the parties is on the Enzon Agreement and the TNF-PEG technology.

SLOAN-KETTERING

Pursuant to a Research Agreement, effective April 8, 1994, between the Company and the Sloan-Kettering, Sloan-Kettering has agreed to continue evaluating the IL-T fusion protein to determine whether such protein protects mice against radiation and chemotherapy. In connection with such activities, Sloan-Kettering has agreed to provide all necessary personnel, equipment supplies and facilities in completion of the protocol set forth in the agreement for a budget not to exceed $35,000. Inventions resulting from Sloan-Kettering's research which were not contemplated by the parties, if any, will be the property of Sloan-Kettering. However, Sloan-Kettering must grant the Company the right of first refusal to acquire a world-wide exclusive license to develop and commercialize any such invention upon mutually agreeable terms. The term of the

agreement is through completion of the protocol.

CYTOMUNE

Cytomune, Inc. ("Cytomune") is a joint venture (50:50) between the Company and Pestka. A novel anti-leukemic drug, IL-P, is in development utilizing proprietary technology developed by Dr. Sidney Pestka. Dr. Pestka developed interferon for commercial use for Hoffmann-La Roche, Inc. The objective of the joint venture is to develop IL-P for the diagnosis and treatment of leukemia. For their respective interests in the joint venture the Company contributed $233,000 and certain technology and Pestka contributed exclusive rights to phosphorylation technology as applied to Interleukin-2. Pestka has performed research and development for Cytomune relating to IL-P using this technology. Additional funding is not required but, if provided, will permit such research and development to continue. See "Management-Scientific Advisors/Consultants."

UNIVERSITY OF TEXAS

In June 1992, the Company and the University of Texas at Dallas ("UTD") entered into an agreement, which has been amended, pursuant to which UTD performs certain research and development activities relating to anti-sense compounds and related technology for use in humans as therapeutic and diagnostic products. Pursuant to the agreement, UTD provides all necessary personnel, equipment supplies and facilities in consideration for an amended budget not to exceed $240,240. Inventions under the agreement, if any, will be the property of UTD. However, UTD must grant the Company the right of first refusal to acquire a license to develop and commercialize any intellectual property resulting from the agreement for a royalty to be negotiated, not to exceed 8% of the net sales (as defined in the agreement) of commercialized products. The Company is not required to pay any up-front fee or any minimum royalty. The agreement has been extended through August 1999 in consideration for the Company's agreement to increase the original funding commitment from $150,240 to $285,240 of which amount the Company has paid $273,213 as of December 31, 1998.

In June 1996, the Company entered into a Patent License Agreement (the "Regents Agreement") with the Board of Regents of the University of Texas System ("Regents") whereby the Company received an exclusive royalty-bearing license to manufacture, have manufactured, use, sell and sublicense products related to a U.S. Patent Application entitled, "A Method for Ranking Sequences to Select Target Sequence Zones of Nucleus Acids." The technology has identified optimum regions within genes to bind anti-sense products. Anti-sense products are under development to control genes involved in human diseases such as cancer, diabetes, or AIDS. This discovery potentially has broad applications to many human and viral genes involved in human disease. The Company is required to pay Regents certain royalties and sublicensing fees. The Regents Agreement shall be in full force and effect until the later of 20 years or the expiration of patent rights. However, the Regents Agreement will terminate (i) automatically if the Company's obligations to pay royalties and sublicensing fees are not satisfied within 30 days after the Company receives written notice of its failure to make such payment; (ii) upon 90 days' written notice if the Company or Regents shall breach or default on any obligation under the Regents Agreement; and (iii) upon 60 days' written notice by the Company. In addition, Regents may terminate the exclusivity of the Regents Agreement at any time after

June 1999 and may terminate the license completely at any time after June 2001 if the Company fails to provide Regents with written evidence that it has commercialized or is actively attempting to commercialize the licensed product. There can be no assurance that any revenues will be derived by the Company as a result of the agreement or that the Regents will not be in a position to

exercise its termination rights.

HELM AG

The Company entered into a marketing agreement, effective in November 1994, with Helm AG, a world-wide distributor of pharmaceutical and related products, granting Helm AG the right, in certain parts of Europe, to market the technology and/or products of, and arrange business introductions for, the Company on a commission basis. The agreement is terminable by either party on six months' notice. To date, the Company has no products available for distribution and thus no revenues have been derived from such agreement. There can be no assurance that any revenues will be derived by the Company from this agreement in the future.

WSURF

In July 1996, the Company entered into the WSURF Agreement with WSURF whereby the Company received an exclusive, world-wide license to use and/or sublicense WSURF Technology. The Company is required to pay WSURF license fees of $7,500 per year, commencing July 1, 1997, as well as certain royalties and sublicensing fees. The WSURF Agreement shall be in full force and effect until the last to expire of the patents licensed under the WSURF Technology. However, the Company may terminate the WSURF Agreement on 90 days' notice provided that all amounts due to WSURF are paid. WSURF may terminate the WSURF Agreement immediately if the Company ceases to carry on its business or on 90 days' notice if the Company is in default in payment of fees or royalties, is in breach of any provisions of the WSURF Agreement, provides materially false reports or institutes bankruptcy, insolvency, liquidation or receivership proceedings. In connection with this agreement, the Company granted WSURF warrants to purchase 36,000 shares of Common Stock at $4.25 per share. Such Warrants vest annually in 12,000 increments commencing July 1999 and expire July 2002. In June 1998, the Company and WSURF amended the WSURF Agreement therein (i) covering additional patents, patent applications and genes for enzymes which are expected to be the subject of future patent filings and (ii) granting to the Company an option, expiring July 2006, to license any prospective WSURF Technology as it is developed. There can be no assurance that any revenues will be derived by the Company as a result of the agreement. See "-Collaborative Agreements-Bristol-Myers Squibb."

PATENTS, LICENSES AND PROPRIETARY RIGHTS

The Company owns and has rights to a number of patents and patent applications. In 1991, the Company entered into the WadTech Agreement, whereby it was assigned (i) two issued United States patents (expiring, under current law, in 2006 and 2007, respectively), (ii) three pending United States patent applications and (iii) six pending foreign patent applications held by WadTech. A. U.S. patent for the LCG gene, filed by the Company in July 1994, was issued on December 31, 1996. A patent for the lung cancer gene market issued in June 1998. Pursuant to the RDI Agreement, the Company has been granted an exclusive license to the technology contained in the Paclitaxel Fermentation Production System, including one issued United States patent, one United States patent application with allowed claims and foreign patent applications. In addition, UTD had filed a patent application, on which a patent was issued in 1999, relating to certain anti-sense technology with respect to which, pursuant to the agreement between the Company and UTD, the Company has a right of first refusal to acquire a license to develop and commercialize products using such technology. Pursuant to the UCLA License Agreement I, the Company has been granted an exclusive license to technology involving the "Inhibition of Cyst Formation By Cytoskeletal Specific Drugs" and related patent of which the claims have been allowed by the U.S. Patent and Trademark Office in August 1997. Pursuant to the UCLA License Agreement III, the Company has been granted an exclusive world-wide license to technology involving a U.S. patent pending entitled, "Peptide Antiestrogen Compositions and Methods for Treating Breast

Cancer." In connection with the employment of Dr. Dorit Arad in January 1999, the Company was assigned patent applications for technology including "Pharmaceutical Preparation Which Compromises Inhibitors of Cysteine Protease," "Modulators of Cysteine Protease," "Novel Antiviral

Compounds," and "Cysteine Protease Inhibitors." In March 1999, a broad patent issued for the production of Paclitaxel by microorganisms isolated from the slow growing Pacific yew tree utilizing the technology licensed to the Company pursuant to the RDI Agreement. See "-Collaborative Agreement; Bristol-Myers Squibb, -WadTech; -RDI; -UCLA License Agreements and -University of Texas."

The Company's policy is to protect its technology by, among other things, filing patent applications for technology it considers important in the development of its business. In addition to filing patent applications in the United States, the Company has filed, and intends to file, patent applications in foreign countries on a selective basis. The Company has filed patent applications relating to its IL-T and Lung Cancer Gene technologies and is preparing to file additional patent applications, relating primarily to technologies for vaccines and Paclitaxel production. Although a patent has a statutory presumption of validity in the United States, the issuance of a patent is not conclusive as to such validity or as to the enforceable scope of the claims of the patent. There can be no assurance that the Company's issued patents or any patents subsequently issued to or licensed by the Company will not be successfully challenged in the future. The validity or enforceability of a patent after its issuance by the patent office can be challenged in litigation. If the outcome of the litigation is adverse to the owner of the patent, third parties may then be able to use the invention covered by the patent, in some cases without payment. There can be no assurance that patents in which the Company has rights will not be infringed or successfully avoided through design innovation.

There can be no assurance that patent applications owned by or licensed to the Company will result in patents being issued or that the patents will afford protection against competitors with similar technology. It is also possible that third parties may obtain patent or other proprietary rights that may be necessary or useful to the Company. In cases where third parties are first to invent a particular product or technology, it is possible that those parties will obtain patents that will be sufficiently broad so as to prevent the Company from using certain technology or from further developing or commercializing certain products. If licenses from third parties are necessary but cannot be obtained, commercialization of the related products would be delayed or prevented. The Company is aware of patent applications and issued patents belonging to competitors and it is uncertain whether any of these, or patent applications filed of which the Company may not have any knowledge, will require the Company to alter its potential products or processes, pay licensing fees or cease certain activities.

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

COMPETITION

All of the Company's proposed products will face competition from existing therapies. The development by others of novel treatment methods for those indications for which the Company is developing compounds could render the Company's compounds noncompetitive or obsolete. This competition potentially includes all of the pharmaceutical concerns in the world that are developing pharmaceuticals for the diagnosis and treatment of cancer. Competition in pharmaceuticals is generally based on performance characteristics, price and timing of market introduction of competitive products. Acceptance by hospitals, physicians and patients is crucial to the success of a product. Price competition may become increasingly important as a result of an increased focus by insurers and regulators on the containment of health care costs. In addition, the various federal and state agencies have enacted regulations requiring rebates of a portion of the purchase price of many pharmaceutical products. See "Risk Factors-Our Competition."

Most of the Company's existing or potential competitors have substantially greater financial, technical and human resources than the Company and may be better equipped to develop, manufacture and market products. In addition, many of these companies have extensive experience in pre-clinical testing, human clinical trials and the regulatory approval process. These companies may develop and

introduce products and processes competitive with or superior to those of the Company. See "Risk Factors-Our Competition."

The Company's competition also will be determined in part by the potential indications for which the Company's compounds are developed. For certain of the Company's potential products, an important factor in competition may be the timing of market introduction of its own or competitive products. Accordingly, the relative speed with which the Company can develop products, complete the clinical trials and regulatory approval processes and supply commercial quantities of the products to the market are expected to be important competitive factors. The Company expects that competition among products approved for sale will be based on, among other things, product efficacy, safety, reliability, availability, price and patent position. See "Risk Factors-Our Competition; and -- No Assurance of FDA Approval; Government Regulation."

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

GOVERNMENT REGULATION

The production and marketing of the Company's products and its research and development activities are subject to regulation for safety and efficacy by numerous governmental authorities in the United States and other countries. In the United States, drugs and pharmaceutical products are subject to rigorous FDA review. The Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations govern or influence the testing, manufacture, safety, labeling, storage, record keeping, approval, advertising and promotion of such products. Non-compliance with applicable requirements can result in fines, recall or seizure of products, total or partial suspension of production, refusal of the government to approve product license applications or allow the Company to enter into supply contracts and criminal prosecution. The FDA also has the authority to revoke product licenses and establishment licenses previously granted.

In order to obtain FDA approval of a new product, the Company must submit proof of safety, purity, potency and efficacy. In most cases, such proof

entails extensive pre-clinical, clinical and laboratory tests. The testing, preparation of necessary applications and processing of those applications by the FDA is expensive and may take several years to complete. There is no assurance that the FDA will act favorably or quickly in making such reviews, and significant difficulties or costs may be encountered by the Company in its efforts to obtain FDA approvals that could delay or preclude the Company from marketing any products it may develop. The FDA may also require post-marketing testing and surveillance to monitor the effects of approved products or place conditions on any approvals that could restrict the commercial applications of such products. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. With respect to patented products or technologies, delays imposed by the governmental approval process may materially reduce the period during which the Company will have the exclusive right to exploit them.

The time period between when a promising new compound is identified and when human testing is initiated is generally referred to as the pre-clinical development period. During this time, a manufacturing process is identified and developed to be capable of producing the compound in an adequately pure and well characterized form for human use. Production of compounds for use in humans is governed by a series of FDA regulations known as Good Manufacturing Practices, which govern all aspects of the manufacturing process. The FDA has published a "Points to Consider" guidance document with respect to the manufacture of MAbs for human use.

The FDA approval process for a new and unfamiliar term or drug involves completion of pre-clinical studies and the submission of the results of these studies to the FDA in an IND application. Pre-clinical studies involve laboratory evaluation of product characteristics and animal studies to assess the efficacy and safety of the product. Pre-clinical studies are regulated by the FDA under a series of regulations called the Good Laboratory Practices ("GLP") regulations. Violations of these regulations can, in some cases, lead to invalidation of the studies, requiring those studies to be replicated.

Once the IND is approved, human clinical trials may be conducted. Human clinical trials are typically conducted in three sequential phases, but the phases may overlap. Phase I trials consist of testing the product in a small - number of volunteers, primarily for safety at one or more doses. In Phase II, in addition to safety, the efficacy of the product is evaluated in a patient population somewhat larger than Phase I trials. Phase III trials typically involve additional testing for safety and clinical efficacy in an expanded population

at geographically dispersed test sites. A clinical plan, or "protocol," accompanied by the approval of the institution participating in the trials, must be submitted to the FDA prior to commencement of each clinical trial. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time.

To date an IND was submitted for the LCG-MAb clinical trials at Wadley. The Company intends to file an IND for a humanized form of the LCG-MAb followed by clinical trials. The results of the pre-clinical and clinical testing are submitted to the FDA in the form of a New Drug Application ("NDA") or, in the case of a biologic, such as LCG-MAb and other MAbs, as part of a product license application ("PLA"). In a process which generally takes several years, the FDA reviews this application and once, and if, it decides that adequate data is available to show that the new compound is both safe and effective, approves the drug or biologic product for marketing. The amount of time taken for this approval process is a function of a number of variables including the quality of the submission and studies presented, the potential contribution that the compound will make in improving the treatment of the disease in question and the workload at the FDA. There can be no assurance that any new drug will successfully proceed through this approval process or that it will be approved in any specific period of time.

The FDA may, during its review of an NDA or PLA, ask for the production of additional test data. If the FDA does ultimately approve the product, it may require post-marketing testing, including potentially expensive Phase IV

studies, and surveillance to monitor the safety and effectiveness of the drug. In addition, the FDA may in some circumstances impose restrictions on the use of the drug that may be difficult and expensive to administer and may seek to require prior approval of promotional materials.

Manufacture of a biologic product must be in a facility covered by an FDA-approved Establishment License Application. Manufacture, holding, and distribution of both biologic and non-biologic drugs must be in compliance with GMPs. Manufacturers must continue to expend time, money, and effort in the area of production and quality control and record keeping and reporting to ensure full compliance with those requirements. The labeling, advertising, and promotion of a drug or biologic product must be in compliance with FDA regulatory requirements. Failures to comply with applicable requirements relating to manufacture, distribution, or promotion can lead to FDA demands that production and shipment cease, and, in some cases, that products be recalled, or to enforcement actions that can include seizures, injunctions, and criminal prosecution. Such failures can also lead to FDA withdrawal of approval to market the product.

The FDA may designate a biologic or drug as an Orphan Drug for a particular use, in which event the developer of the biologic or drug may request grants from the government to defray the costs of certain expenses related to the clinical testing of such drug and be entitled to a seven year marketing exclusivity period.

The Company's ability to commercialize its products successfully may also depend in part on the extent to which reimbursement for the cost of such products and related treatment will be available from government health administration authorities, private health insurers and other organizations. Such third-party payers are increasingly challenging the price of medical products and services. Several proposals have been made that may lead to a government-directed national health care system. Adoption of such a system could further limit reimbursement for medical products and services. Significant uncertainty exists as to the reimbursement status of newly approved health care products, and there can be no assurance that adequate third-party coverage will be available to enable the Company to maintain price levels sufficient to realize an appropriate return on this investment in product development.

The Company is also subject to regulation by the Occupational Safety and Health Administration ("OSHA") and the Environmental Protection Agency ("EPA") and to regulation under the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other regulatory statutes, and may in the future be subject to other federal, state or local regulations. Either or both of OSHA or the EPA may promulgate regulations that may affect the Company's research and development programs. The Company is unable to predict whether any agency will adopt any regulation which could have a material adverse effect on the Company's operations.

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from country to country. Whether or not FDA approval has been obtained, approval of a product by comparable regulatory authorities of foreign countries must be obtained prior to the commencement of marketing the product in those countries. The time required to obtain such approval may be longer or shorter than that required for FDA approval. See "Risk Factors-No Assurance of FDA Approval; Government Regulation."

MANUFACTURING AND MARKETING

Neither the Company nor any of its officers or employees has pharmaceutical marketing experience. Furthermore, the Company has never manufactured or marketed any products and the Company does not have the resources to manufacture or market on a commercial scale any products that it may develop. The Company's long-term objective is to manufacture and market certain of its products and to rely on independent third parties for the

manufacture of certain of its other products. For the foreseeable future, the Company will be required to rely on corporate partners or others to manufacture or market products it develops, although no specific arrangements have been made. No assurance can be given that the Company will enter into any such arrangements on acceptable terms. See "Collaborative Agreement-Helm AG."

Manufacturing. While the Company intends to select manufacturers that comply with GMP and other regulatory standards, there can be no assurance that these manufacturers will comply with such standards, that they will give the Company's orders the highest priority or that the Company would be able to find substitute manufacturers, if necessary. In order for the Company to establish a manufacturing facility, the Company will require substantial additional funds and will be required to hire and retain significant additional personnel and comply with the extensive GMP regulations of the FDA applicable to such a facility. No assurance can be given that the Company will be able to make the transition successfully to commercial production, should it choose to do so.

Marketing. Despite the Company's strategy to develop products for sale to concentrated markets, significant additional expenditures and management resources will be required to develop an internal sales force, and there can be no assurance that the Company will be successful in penetrating the markets for any products developed. For certain products under development, the Company may seek to enter into development and marketing agreements which grant exclusive marketing rights to its corporate partners in return for royalties to be received on sales, if any. Under certain of these agreements, the Company's marketing partner may have the responsibility for all or a significant portion of the development and regulatory approval. In the event that the marketing and development partner fails to develop a marketable product or fails to market a product successfully, the Company's business may be adversely affected. The sale of certain products outside the United States will also be dependent on the successful completion of arrangements with future partners, licensees or distributors in each territory. There can be no assurance that the Company will be successful in establishing any additional collaborative arrangements, or that, if established, such future partners will be successful in commercializing products. See "Collaborative Agreement-Helm AG."

PRODUCT LIABILITY INSURANCE

The testing, marketing and sale of human health care products entail an inherent risk of allegations of product liability, and there can be no assurance that product liability claims will not be asserted against the Company. The Company intends to obtain product liability insurance for its ongoing clinical trials. Such coverage may not be adequate as and when the Company further develops products. There can be no assurance that the Company will be able to obtain, maintain or increase its insurance coverage in the future on acceptable terms or that any claims against the Company will not exceed the amount of such coverage.

HUMAN RESOURCES

As of April 5, 1999, the Company had 19 full-time employees, 15 of whom were engaged directly in research and development activities, including 8 Ph.D.s, and 4 of whom were in executive and administrative positions. The Company's employees are not governed by any collective bargaining agreement and the Company believes that its relationship with its employees is good. See "Management."

PROPERTY

The Company occupies an aggregate of approximately 21,400 square feet of both office and laboratory space in Dallas, Texas at two separate facilities. The Company leases approximately 4,800 square feet of office and laboratory space pursuant to a lease agreement expiring in August 1999. In addition, the

Company occupies an additional approximate 16,600 square feet of office and laboratory space, including approximately 11,000 square feet added in 1999, pursuant to a lease assigned to the Company by the

Wadley/Phillips Partnership and which lease term has been extended until December 2000 The Company's lease payments for the fiscal year ended December 31, 1998 were approximately $142,000. The Company believes that its current facilities are suitable for its present needs.

LEGAL PROCEEDINGS

As of the date hereof, the Company is not a party to any material legal proceedings.

MANAGEMENT

EXECUTIVE OFFICERS, DIRECTORS AND PRINCIPAL SCIENTISTS

The executive officers, directors and principal scientists of the Company are as follows:

<TABLE>
<CAPTION>

Name	Age	Position
Arthur P. Bollon, Ph.D. (1)	56	Chairman, President and Chief Executive Officer
Ira J. Gelb, M.D. (1)(2)	71	Director
Irwin C. Gerson (1)(2)	69	Director
Walter M. Lovenberg, Ph.D. (2)	64	Director
Daniel Shusterman, J.D.	35	Vice President of Operations, Treasurer and Chief Financial Officer
Dorit Arad, Ph.D.	39	Vice President of Drug Design
Susan L. Berent, Ph.D.	46	Director of Gene & Protein Engineering and Information Systems, Co-Director Molecular Immunology and Gene Expression Systems
Hakim Labidi, Ph.D.	41	Director of Vaccine Program
Rajinder Singh Sidhu, Ph.D.	50	Director of Fungal Paclitaxel Program, Co-Director of Gene Expression Systems
Richard M. Torczynski, Ph.D.	43	Director of Human Gene Discover, Mammalian Expression system and Diagnostic Development, Co-Director of Molecular Immunology

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(1) Member of the Audit Committee.
(2) Member of the Compensation Committee.

Arthur P. Bollon, Ph.D., a founder of the Company, has, since the Company's inception in 1991, served as Chairman of the Board of Directors, President, Chief Executive Officer and, until March 1995, Treasurer. Dr. Bollon

received his Ph.D. from the Institute of Microbiology at Rutgers University and was a Post Doctoral Fellow at Yale University. He has served as consultant to a number of major companies (including Merck, Sharp & Dohme and Diamond Shamrock) and has previously served on the Board of Directors and Advisory Boards of several biotechnology companies, including Viragen, Inc., Wadley Biosciences Corp. and American Bio-netics, Inc. From 1987

to 1991, Dr. Bollon served as President and Chief Executive Officer of the Wadley/Phillips Partnership. Prior to that time, he was Director of Genetic Engineering and Chairman of the Department of Molecular Genetics at Wadley Institutes of Molecular Medicine. In his capacities at the Wadley/Phillips Partnership and Wadley Institutes, Dr. Bollon has played a leading role in bringing the technology that forms the basis of CPI from conception to reality.

Ira J. Gelb, M.D. has been a director of the Company since April 1994. Dr. Gelb received his M.D. from New York University School of Medicine in 1951. After finishing his training in cardiology at the Mount Sinai Hospital in New York City in 1957, he continued his association with that institution until his retirement in 1992. During this period, he was appointed Attending Cardiologist and Associate Clinical Professor at the Mount Sinai School of Medicine. Other appointments included Adjunct Associate Clinical Professor of Cardiology at Cornell Medical School, Adjunct Clinical Professor of Cardiology at New York Medical College, Cardiology Consultant at Lawrence Hospital, Bronxville, N.Y. and United Hospital, Portchester, N.Y. Dr. Gelb is a past President of the American Heart Association, Westchester-Putnam Chapter and was a Senior Assistant Editor with the American Journal of Cardiology from 1968-1983, when be became a founding editor of the Journal of the American College of Cardiology (the "JACC"). Dr. Gelb continued as a Senior Assistant Editor of JACC until his retirement in 1992. Since that time, he has served on the boards of various pharmaceutical companies. Dr. Gelb has been the Clinical Coordinator of Biomedical Programs and Professor of Chemistry & Biochemistry at Florida Atlantic University since 1998 and an Adjunct Professor and a member of its Foundation Board, since October 1996 and its Steering Committee, since 1997. Since December 1996 he has also been a member of the Board of Directors of the American Heart Association - Boca Raton Division. In 1998, Boca Raton Community Hospital added Dr. Gelb as a member to its Foundation Board. Since 1992, Dr. Gelb has been an Honorary Lecturer at The Mount Sinai School of Medicine. In November 1998, Dr Gelb was appointed Voluntary Professor of Medicine at the University of Miami School of Medicine.

Irwin C. Gerson has been a director since March 1995. Since January 1998, Mr. Gerson has served as Chairman Emeritus of Lowe McAdams Healthcare. Prior thereto, from 1995 until December 1997, he had been Chairman of Lowe McAdams Healthcare and prior thereto he had been, since 1986, Chairman and Chief Executive Officer of William Douglas McAdams, Inc., one of the largest advertising agencies in the U.S. specializing in pharmaceutical communications to healthcare professionals. Mr. Gerson has received a B.S. in Pharmacy from Fordham University and an MBA from the NYU Graduate School of Business Administration. In 1992, Mr. Gerson received an honorary Doctor of Humane Letters from the Albany College of Pharmacy. Mr. Gerson serves as a Trustee of Long Island University, Chairman of The Council of Overseers-Arnold and Marie Schwartz College of Pharmacy, member of the Board of Trustees of the Albany College of Pharmacy and, from 1967 through 1974, was a lecturer on sales management pharmaceutical marketing at the Columbia College School of Pharmacy. Mr. Gerson also serves as a Member of the Board of Governors, New York Council, American Association of Advertising Agencies, a Director (and past Chairman) of Business Publications Audit ("BPA"), a Director of the Connecticut Grand Opera, a Director of the Stamford Chamber Orchestra, and is a director of Andrx Corporation, a NASDAQ traded company (Ticker: ANDRX). Mr. Gerson previously served as Director of the foundation of Pharmacists and Corporate Americans for AIDS Education, the Pharmaceutical Advertising Council, Penn Dixie Industries, Continental Steel Corporation, the Nutrition Research Foundation and as a Trustee of the Chemotherapy Foundation.

Walter M. Lovenberg, Ph.D. has been a director since August 1995. Dr. Lovenberg was an Executive Vice President and member of the Board of Directors of Marion Merrell Dow Inc. from 1989 through August 1993. Dr. Lovenberg served as the President of the Marion Merrell Dow Research Institute from 1989 to 1993

and Vice President from 1986 through 1989. Prior to joining Marion Merrell Dow (1958-1985), he was a Senior Scientist and Chief of Biochemical Pharmacology at the National Institutes of Health. Dr. Lovenberg has been President of Lovenberg Associates, Inc. since 1993. Since 1997, Dr. Lovenberg has served as Chief Executive Officer of Helicon Therapeutics Inc., a private company, and since 1992 and 1995, Dr. Lovenberg has served as a director of Xenometrix, Inc. and Inflazyme Pharmaceutics, Ltd (each traded on the Vancouver Exchange), respectively. Also, since 1994, Dr. Lovenberg has served as director of OSI Pharmaceuticals, Inc., a public company listed on NASDAQ. Dr. Lovenberg received a Ph.D. in Biochemistry from George Washington University in 1962 and a B.S. in Biochemistry and an M.S. in Agriculture from Rutgers University in 1958 and 1956, respectively. Dr. Lovenberg, who serves as Executive Editor of Analytical Biochemistry and Editor (USA) of Neurochemistry International, is a consulting editor to several other scientific journals. He has been the recipient of many awards, including a Fulbright- Hays Senior Scholar Award and a Public Health Service Superior Service Award. Dr. Lovenberg is a member of the American College of Neuropsychopharmacology, the American Society of Neurochernistry and the American Society of Biochemistry and Molecular Biology.

Daniel Shusterman, J.D. was named Vice President of Operations of the Company in 1994 and Treasurer and Chief Financial Officer in March 1995, after having served as Director of Operations since he joined the Company in 1991. Mr. Shusterman received his M.S. degree with an emphasis on biotechnology from the University of Texas in 1988. He was Director of Operations at Wadley/Phillips Partnership for three years prior to joining CPI. Mr. Shusterman is a registered Patent Agent and received his J.D. from Texas Wesleyan University School of Law in 1993 and has been a member of the Texas bar since 1994. In addition to his role as a V.P. of Operations, he is contributing to the implementation of an intellectual property protection and maintenance system at CPI.

Dorit Arad, Ph.D. joined the Company as Vice President of Drug Design in January 1999. From 1996 until 1998, Dr. Arad served as Scientific Director at Saturi Medical Research LTD. From 1991 until 1993, Dr. Arad served as a consultant to Teva-Israel Pharmaceutical Industries. In addition, Dr. Arad has served as an instructor and lecturer at Technicon in Haifa, Israel and as a lecturer at the Tel-Aviv University. Dr. Arad is the co-author of a number of scientific articles and papers. Dr. Arad received her B.Sc., M.Sc. and D.Sc. Degrees in Chemistry from Technicon, Haifa, Israel.

Susan L. Berent. Ph.D. has been with the Company since 1991 as Director of Gene and Protein Engineering and Computer Systems. Dr. Berent received her Ph.D. in Biological Chemistry from the University of Michigan and completed a postdoctoral fellowship at the Department of Molecular Genetics, Wadley Institutes of Molecular Medicine. She was appointed to Senior Scientist at Wadley in 1984 and maintained that position in the Wadley/Phillips Partnership until she joined the Company in 1991. Dr. Berent is an expert in protein chemistry, DNA libraries, cytokines such as TNF, and production Systems.

Hakim Labidi. Ph.D. has been with the Company since 1991 as Director of the Vaccine Program. Dr. Labidi received his Ph.D. in Microbiology at the Pasteur Institute in Paris, France and has been a senior scientist at CPI since 1991. Prior to joining the Company, Dr. Labidi was a Senior Research Investigator and Assistant Professor at the University of Texas from 1987 to 1989 and an Associate Professor at Kuwait University from 1989 until 1991. Dr. Labidi was the first to isolate and sequence a plasmid from mycobacterium.

Rajinder Singh Sidhu. Ph.D. has been with the Company since 1991 as Director of the Fungal Program and Co-Director of Gene Expression Systems. Dr. Sidhu received his Ph.D. degree in Microbiology from Haryana Agricultural University in Hissar, India, and completed a postdoctoral fellowship at Osaka University in Japan. He was appointed to Senior Scientist at Wadley in 1984 and maintained that position in the Wadley/Phillips Partnership until he joined the Company. Dr. Sidhu is an expert on gene fusion and engineering, fungal genes and secretion, cytokines such as TNF, and production Systems.

Richard M. Torczynski, Ph.D. has been with the Company since 1991 as Director of Human Gene Discovery, Mammalian Expression System and Diagnostic Development, and Co-Director of Molecular Immunology. Dr. Torczynski received his Ph.D. degree in Biology from the University of Texas and completed his research fellowship under the direction of Dr. Arthur Bollon. He was appointed to Senior Scientist at Wadley in 1984 and maintained that position in Wadley/Phillips Partnership. Dr. Torczynski is an expert on certain specialized gene libraries, monoclonal antibodies and cytokines such as interferon.

The Board of Directors currently consists of four members. All directors hold office until the next annual meeting of stockholders and until their successors are duly elected and qualified. Officers are elected to serve, subject to the discretion of the Board of Directors, until their successors are appointed.

Directors receive fees of $1,000 per month, or an annual fee of $12,000. Dr. Gelb has, to date, also received options to purchase 129,000 shares of Common Stock with exercise prices ranging from $2.69 to $5.00 per share. Mr. Gerson has, to date, received options to purchase 125,000 shares of Common Stock with exercise prices ranging from $2.69 to $5.00 per share. Dr. Lovenberg has, to date, received options to purchase 125,000 shares of Common Stock with exercise prices ranging from $2.69 to $5.00 per share. See "Executive Compensation" for information regarding stock option grants to Dr. Bollon. Directors are also reimbursed for expenses actually incurred in connection with their attendance at meetings of the Board of Directors.

The Company's Certificate of Incorporation includes certain provisions permitted pursuant to Delaware law whereby officers and directors of the Company are to be indemnified against certain liabilities. The Company's Certificate of Incorporation also limits, to the fullest extent permitted by Delaware law, a director's liability for monetary damages for breach of fiduciary duty, including gross negligence, except liability for (i) breach of the director's duty of loyalty, (ii) acts or omissions not in good faith or which involve

intentional misconduct or a knowing violation of the law, (iii) the unlawful payment of a dividend or unlawful stock purchase or redemption and (iv) any transaction from which the director derives an improper personal benefit. Delaware law does not eliminate a director's duty of care and this provision has no effect on the availability of equitable remedies such as injunction or rescission based upon a director's breach of the duty of care. In addition, the Company has obtained an insurance policy providing coverage for certain liabilities of its officers and directors.

The Company has been advised that it is the position of the Commission that insofar as the foregoing provision may be invoked to disclaim liability for damages arising under the Securities Act, such provision is against public policy as expressed in the Securities Act and is therefore unenforceable.

SCIENTIFIC ADVISORS/CONSULTANTS

The Company's Scientific Advisory Board currently consists of individuals having extensive experience in the fields of molecular genetics, chemistry, oncology and microbiology. At the Company's request, the scientific advisors review and evaluate the Company's research programs and advise the Company with respect to technical matters in fields in which the Company is involved.

The following table sets forth the name and current position of each scientific advisor:

Name	Position

Hugo David, M.D., Ph.D.	Consultant, New University of Lisbon, Institute of Hygiene and Topical Medicine
Donald M. Gray, Ph.D.	Professor, Department of Molecular and Cell Biology, University of Texas at Dallas
Sidney Pestka, M.D.	Chairman & Professor, Department of Molecular Genetics and Microbiology and Professor of Medicine, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School
Jeffrey Schlom, Ph.D.	Chief, Laboratory of Tumor Immunology and Biology, Division of Cancer Biology and Diagnosis, National Cancer Institute, National Institutes of Health
David A. Scheinberg, M.D., Ph.D.	Chief, Leukemia Service; Head, Hematopoietic Cancer Immunochemistry Laboratory, Memorial Sloan-Kettering Cancer Center
Gary Strobel, Ph.D.	Professor, Montana State University

All of the scientific advisors are employed by other entities and some have consulting agreements with entities other than the Company, some of which entities may in the future compete with the Company. Four of the current scientific advisors receive $1,000 per month from the Company. The scientific advisors are expected to devote only a small portion of their time to the Company and are not expected to participate actively in the day-to-day affairs of the Company. Certain of the institutions with which the scientific advisors are affiliated may adopt new regulations or policies that limit the ability of the scientific advisors to consult with the Company. It is possible that any inventions or processes discovered by the scientific advisors will remain the property of such persons or of such persons' employers. In addition, the institutions with which the scientific advisors are affiliated may make available the research services of their personnel, including the scientific advisors, to competitors of the Company pursuant to sponsored research agreements.

Dr. Hugo David is consultant mycobacteriologist to the Institute of Hygiene and Tropical Medicine at New University of Lisbon. He was chief of the mycobacteriology branch at Center for Disease Control (CDC) and was Professor and Head of the Mycobacterial and Tuberculosis Unit at Pasteur Institute in Paris. Dr. David is an authority on mycobacterial infections and vaccine development for tuberculosis and leprosy.

Dr. Donald M. Gray is a Professor and was, until August 1995, Chairman, Department of Molecular and Cell Biology, University of Texas at Dallas. He is a world authority on DNA structures in solution and is working with CPI on anti-sense therapy.

Dr. Sidney Pestka is Professor and Chairman of the Department of Molecular Genetics and Microbiology and Professor of Medicine, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School. Dr. Pestka was formerly head of the program at the Roche Institute of Molecular Biology which resulted in the development of interferon for commercialization.

Dr. Jeffrey Schlom is Chief of the Laboratory of Tumor Immunology and Biology, Division of Cancer Biology and Diagnosis at the National Cancer Institute, National Institutes of Health and is one of the world leaders in the development of monoclonal antibodies for cancer therapy.

Dr. David A. Scheinberg is Chief of Leukemia Service and Head of the Hematopoietic Cancer Immunochemistry Laboratory at Memorial Sloan-Kettering Cancer Center. He is an authority on the immunotherapy of cancer and has directed many clinical trials for new anti-cancer products.

Dr. Gary Strobel is Professor at Montana State University. Dr. Strobel and colleagues Dr. Andrea Stierle and Dr. Donald Stierle isolated the fungus, Taxomyces andreanae, which is being used by the Company to make the anti-cancer drug, Paclitaxel.

EXECUTIVE COMPENSATION

The following summary compensation table sets forth the aggregate compensation paid or accrued by the Company to the Chief Executive Officer and to the four most highly compensated executive officers other than the Chief Executive Officer whose annual compensation exceeded $100,000 for the fiscal year ended December 31, 1998 (collectively, the "Named Executive Officers") for services during the fiscal years ended December 31, 1998, December 31, 1997 and December 31, 1996:

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

		ANNUAL COMPENSATION			LONG-TERM COMPENSATION AWARDS	
NAME AND PRINCIPAL POSITION	YEAR	SALARY	BONUS	ALL OTHER COMPENSATION (1)	STOCK OPTIONS #	
<S>	<C>	<C>	<C>	<C>	<C>	
Arthur P. Bollon,	1998	$186,230	-	$6,000	100,000	
Chairman and Chief	1997	$180,856	-	$6,000	95,000	
Executive Officer	1996	$165,951	-	$6,000	150,000	

</TABLE>

(1) Consisting of car allowances.

EMPLOYMENT CONTRACTS AND TERMINATION OF EMPLOYMENT AND CHANGE-IN-CONTROL ARRANGEMENTS

Arthur P. Bollon, Ph.D. is employed under an extension effective October 8, 1998 to his 1992 employment agreement with the Company, which agreement has been extended until November 6, 2003. As extended, the agreement provides for the payment to Dr. Bollon of a base salary of $200,000 per year with annual increases of not less that 5% per year. In addition, in the event Dr. Bollon is terminated without just cause or due to a Disability (as defined in the employment agreement), the employment agreement provides that Dr. Bollon shall receive severance payments of equal monthly installments at the base rate until the earlier of the expiration of the term or the expiration of 36 months. Dr. Bollon also receives a car expense allowance of $500 per month under the employment agreement. In November 1992, the Company granted Dr. Bollon options to purchase 200,000 shares of Common Stock, at an exercise price of $1.65

per share. In April 1996, the Company granted Dr. Bollon options to purchase 50,000 shares of Common Stock at an exercise price of $4.125 per share. In December 1996, the Company granted Dr. Bollon options to purchase 100,000 shares of Common Stock at an exercise price of $2.25 per share. In January 1997, the

Company granted Dr. Bollon options to purchase 50,000 shares of Common Stock at an exercise price of $2.375 per share. In June 1997, the Company granted Dr. Bollon options to purchase 20,000 shares of Common Stock at an exercise price of $2.6875 per share. In September 1997, the Company granted Dr. Bollon options to purchase 25,000 shares of Common Stock, at an exercise price of $4.3125 per share. In September 1998, the Company granted Dr. Bollon options to purchase 25,000 shares of Common Stock at an exercise price equal to $3.56 per share. In October 1998, the Company granted Dr. Bollon options to purchase 75,000 shares of Common Stock at an exercise price of $4.75 per share. All such options are exercisable to the extent of 40% after six months of continuous employment from the date of grant and to the extent of an additional 20% on and after each of the first three anniversaries of the date of grant. In October 1998, the Company's Board of Directors approved an amendment to Dr. Bollon's employment agreement, to extend the term until November 6, 2003 and to increase his base salary to $200,000 per annum. See "-Stock Options."

Each of the Company's executive officers and the Company's principal scientists have entered into confidentiality and patent assignment agreements with the Company.

STOCK OPTIONS

In October 1992, the Board of Directors of the Company adopted the Cytoclonal Pharmaceutics Inc. 1992 Stock Option Plan (the "1992 Plan"). The 1992 Plan provides for the grant of incentive stock options intended to qualify as such under Section 422 of the Internal Revenue Code of 1986, as amended, and nonstatutory stock options which do not so qualify. Under the 1992 Plan, as amended, 520,000 shares of Common Stock were reserved for issuance to officers, employees, consultants and advisors of the Company. As of December 31, 1998, options to purchase 218,500 shares of Common Stock had been exercised, no shares are available for future grant and options to purchase 301,500 shares of Common Stock remain outstanding under the 1992 Plan. The exercise prices of such options range from $1.65 to $5.00 per share. In April 1996, the Board of Directors of the Company adopted the Cytoclonal Pharmaceutics Inc. 1996 Stock Option Plan (the "1996 Plan"). Under the 1996 Plan, 750,000 shares of Common Stock had been reserved for issuance to officers, employees, consultants and advisors of the Company. The 1996 Plan provides for the grant of incentive stock options intended to qualify as such under Section 422 of the Internal Revenue Code of 1986, as amended, and nonstatutory stock options which do not so qualify. On August 22, 1998 and October 2, 1998, Amendment No. 1 to the 1996 Plan was approved by the Company's Board of Directors and stockholders, respectively, thereby increasing the number of stock options available for grant pursuant to the 1996 Plan and shares of Common Stock issuable thereunder from 750,000 to 1,500,000. As of December 31, 1998, options to purchase 4,200 shares of Common Stock have been exercised, options to purchase 487,000 shares of Common Stock are available for future grant and options to purchase 1,008,800 shares of Common Stock remain outstanding under the 1996 Plan. The exercise prices of such options range from $2.25 to $8.375 per share. All such options are exercisable to the extent of 40% after six months of continuous employment from the date of grant and to the extent of an additional 20% on and after each of the first three anniversaries of the date of grant. See "Item 4. Submission of Matters to a Vote of Security Holders."

The 1992 Plan and the 1996 Plan are administered by the Compensation Committee of the Board of Directors (the "Compensation Committee"). Subject to the limitations set forth in the 1992 Plan and the 1996 Plan, the Compensation Committee has the authority to determine to whom options will be granted, the term during which options granted under the 1992 and the 1996 Plan may be exercised, the exercise price of options and the rate at which options may be exercised. The maximum term of each incentive stock option granted under the 1992 and the 1996 Plan is ten years. The exercise price of shares of Common Stock subject to options qualifying as incentive stock options may not be less than the fair market value of the Common Stock on the date of the grant. The exercise price of incentive options granted under the 1992 and the 1996 Plan to any participant who owns stock possessing more than 10% of the total combined voting power of all classes of outstanding stock of the Company must be equal to no less than 110% of the fair market value on the date of grant, and incentive stock options granted to such participants must also expire within five years from the date of grant. Under the 1992 Plan, the exercise price of both incentive stock options and nonstatutory stock options is payable in cash or, at the discretion of the Board, in Common Stock or a combination of cash and Common

Stock. Under the 1996 Plan, the exercise price of options is payable in cash or such other means which the Board determines are consistent with such Plan and with applicable laws and regulations.

The following table sets forth certain information with respect to options granted during the year ended December 31, 1998 to the Named Executive Officer:

OPTION GRANTS IN FISCAL YEAR 1998

<TABLE>
<CAPTION>

	INDIVIDUAL GRANTS			
Name	Options Granted (#)	% of Total Options Granted to Employees in Fiscal Year(1)	Exercise of Base Price ($/Sh)	Expiration Date
<S>	<C>	<C>	<C>	
Arthur P. Bollon, Ph.D., President and CEO	25,000	8.4	$3.56	September 1, 2008
	75,000	25.3	$4.75	October 7, 2008

</TABLE>

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(1) Excludes grants to non-employee directors and consultants.

The following table sets forth certain information with respect to each exercise of stock options during the fiscal year ended December 31, 1998 by the Named Executive Officer and the number and value of unexercised options held by such Named Executive Officer as of December 31, 1998:

<TABLE>
<CAPTION>

	AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR AND FY-END OPTION VALUES			
NAME	Shares Acquired On Exercise (#)	Value Realized ($)	Number of Securities Underlying Unexercised Options at FY-End (#) Exercisable/ Unexercisable	Value of Unexercised In-the-Money Options at FY-End (#) Exercisable/ Unexercisable (1)
<S>	<C>	<C>	<C>	<C>
Arthur P. Bollon, Ph.D.	0	0	387,000/158,000	$2,660,625/$1,086,250

</TABLE>

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(1) Based on the fair market value of the Company's Common Stock on December 31, 1998, as determined by the Company's Board of Directors.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

A person is deemed to be a "beneficial owner" of securities of which that person has the right to acquire ownership of such securities within 60 days. The following table sets forth certain information regarding the beneficial ownership of the capital stock of the Company as April 5, 1999 by (i) each person deemed to be the beneficial owner of more than 5% of any class of capital stock of the Company, (ii) each director of the Company, (iii) the Named Executive Officers, and (iv) all directors and executive officers as a group. Information as to (A) Kinder Investments, L.P. ("Kinder"), (B) Peyser Associates, L.L.C., the general partner of Kinder ("Peyser"), and (C) Brian A. Wasserman, the managing partner of Peyser, was derived from the Schedules 13G, as amended, filed by such stockholders with the Commission on April 8, 1998, and, except for the percentage ownership, reflects the information contained therein as of the date such Schedules 13G, as amended, were filed. Except as otherwise indicated, each of the persons named has sole voting and investment power with respect to the shares shown below.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

JMA acted as placement agent for the 1995 Bridge Financing and as underwriter of the IPO and in consideration thereof, received fees of $203,750 and $1,092,500, respectively, plus non-accountable expense allowances of $61,125 and $345,000, respectively. In addition, JMA was granted, in connection with its services as placement agent for the 1995 Bridge Financing, a (i) five-year right of first refusal to act as agent for offerings of securities by the Company and certain of its shareholders and (ii) the right to receive certain fees in connection with any merger and acquisition pursuant to an agreement with the Company. In connection with its services as underwriter of the IPO, JMA was granted options to purchase 200,000 units ("Units") at a price equal to $8.25 per Unit, each Unit consisting of one share of Common Stock, one redeemable Class C Warrant and one redeemable Class D Warrant.

JMA acted as placement agent for the Company's 1998 Private Placement and, in consideration for its services as such, received a sales commission equal to 10% of the $5,633,675 gross proceeds, or $563,368, a non-accountable expense allowance equal to 3%, or $169,010, accountable out-of-pocket expenses equal to $13,658, plus legal and blue sky fees of $48,610. JMA also received a warrant, exercisable for a five-year period commencing April 2, 1998, to purchase 20% of the number of Units sold in the 1998 Private Placement for 134,199 shares of Common Stock and Common Stock Purchase Class E Warrants to purchase 67,101 shares of Common Stock (the "Private Placement Unit Purchase Option").

Bruce Meyers is a principal of JMA and was Vice Chairman of the Board of Directors and Vice President in charge of Business Development for the Company until his resignation from the Company in April 1995. In December 1996, the Company and JMA executed a one year nonexclusive investment banking agreement with the Company providing for a monthly fee of $5,000 payable by the Company to JMA. During each of 1997 and 1998, the Company paid $60,000 under this agreement. This agreement was extended through January 1999. See "Management-Security Ownership of Certain Beneficial Owners and Management."

DESCRIPTION OF SECURITIES

UNITS

Each Unit offered in the IPO consisted of one share of Common Stock, one Class C Warrant and one Class D Warrant. Each Class C Warrant entitles the

holder thereof to purchase, until November 2, 2000, one share of Common Stock and one Class D Warrant at an exercise price of $6.50, subject to adjustment. Each Class D Warrant entitles the holder thereof to purchase one share of Common Stock at an exercise price of $8.50, subject to adjustment. The Units were separated into their components after the IPO.

AUTHORIZED STOCK

The authorized capital stock of the Company consists of 30,000,000 shares of Common Stock, par value $.01 per share, and 10,000,000 shares of Preferred Stock, par value $.01 per share.

COMMON STOCK

Of the authorized Common Stock, 10,290,380 shares were outstanding as of April 5, 1999 and were held by more than approximately 300 record holders. Subject to the prior rights of the holders of any shares of Preferred Stock currently outstanding or which may be issued in the future, the holders of the Common Stock are entitled to receive dividends from funds of the Company legally available therefor when, as and if declared by the Board of Directors of the Company, and are entitled to share ratably in all of the assets of the Company available for distribution to holders of Common Stock upon the liquidation, dissolution or winding-up of the affairs of the Company subject to the liquidation preference, if any, of any then outstanding shares of Preferred Stock of the Company. Holders of the Common Stock do not have any preemptive, subscription, redemption or conversion rights. Holders of the Common Stock are entitled to one vote per share on all matters which they are entitled to vote upon at meetings of stockholders or upon actions taken by written consent pursuant to Delaware corporate law. The holders of Common Stock do not have cumulative voting rights, which means that the holders of a plurality of the outstanding shares can elect all of the directors of the Company. All of the shares of the Common Stock currently issued and outstanding are, and the shares of the Common Stock to be issued upon exercise of the Warrants, when paid for in accordance with the terms will be, fully-paid and nonassessable. No dividends have been paid to holders of the Common Stock since the incorporation of the Company, and no dividends are anticipated to be declared or paid in the reasonably foreseeable future. See "Dividend Policy." The Common Stock, Class C Warrants and Class D Warrants are quoted on the Nasdaq SmallCap Market under the symbols "CYPH," "CYPHW" and "CYPHZ," respectively. There can be no assurance, however, that the securities will not be delisted from the Nasdaq SmallCap Market. See "Risk Factors - Possible Delisting of Securities from the Nasdaq Stock Market."

PREFERRED STOCK

The Board of Directors of the Company has the authority, without further action by the holders of the outstanding Common Stock, to issue Preferred Stock from time to time in one or more classes or series, to fix the number of shares constituting any class or series and the stated value thereof, if different from the par value, and to fix the terms of any such series or class, including dividend rights, dividend rates, conversion or exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price and the liquidation preference of such class or series. The Company presently has one series of Preferred Stock outstanding, designated as the Company's Series A Convertible Preferred Stock (the "Series A Preferred Stock"). The Company has no present plans to issue any other series or class of Preferred Stock. The designations, rights and preferences of the Series A Preferred Stock is set forth in the Certificate of Designations of Series A Convertible Preferred Stock, which has been filed with the Secretary of State of the State of Delaware.

Series A Preferred Stock. Of the authorized Preferred Stock, 4,000,000

shares have been designated Series A Preferred Stock, of which 757,673 shares were issued and outstanding as of April 5, 1999. Dividends are payable on the Series A Preferred Stock in the amount of $.25 per share, payable annually in arrears. At the option of the Board of Directors of the Company, dividends will be paid either (i) wholly or partially in cash or (ii) in newly issued shares of Series A Preferred Stock valued at $2.50 per share to the extent a cash dividend is not paid. Shares of Series A Preferred Stock were issued in January 1993 as partial payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1992 (the remaining dividend was paid in cash). 104,869 shares of Series A Preferred Stock were issued in January 1994 as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1993. 115,307 shares of Series A Preferred Stock were issued in January 1995 as full payment of the dividend due on Series A Preferred Stock for the year ended December 31, 1994. 126,888 shares of Series A Preferred Stock were issued in January 1996 as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1995. 122,788 shares of the Series A Preferred Stock

were issued in January 1997 as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1996. 94,680 shares of the Series A Preferred Stock were issued in January 1998 as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1997. 74,648 shares of the Series A Preferred Stock were issued in January 1999 as full payment of the dividends due the Series A Preferred Stock for the year ended December 31, 1998. See "Dividend Policy." Holders of Series A Preferred Stock have the right to convert their shares, at their option exercisable at any time, into shares of Common Stock of the Company on a one-for-one basis subject to anti-dilution adjustments. These anti-dilution adjustments are triggered in the event of any subdivision or combination of the Company's outstanding Common Stock, any payment by the Company of a stock dividend to holders of the Company's Common Stock or other occurrences specified in the Certificate of Designations relating to the Series A Preferred Stock. The Company may elect to convert the Series A Preferred Stock into Common Stock or a substantially equivalent preferred stock in case of a merger or consolidation of the Company in which the Company does not survive, a sale of all or substantially all of the Company's assets or a substantial reorganization of the Company. Each share of Series A Preferred Stock is entitled to one vote on all matters on which the Common Stock has the right to vote. Holders of Series A Preferred Stock are also entitled to vote as a separate class on any proposed adverse change in the rights, preferences or privileges of the Series A Preferred Stock and any increase in the number of authorized shares of Series A Preferred Stock. The Company, at its sole option, has the right to redeem all or any portion of the Series A Preferred Stock at $2.50 per share plus accrued and unpaid dividends. In the event of any liquidation or winding-up of the Company, the holders of the Series A Preferred Stock will be entitled to receive $2.50 per share plus any accrued and unpaid dividends before any distribution to the holders of the Common Stock.

The Series A Preferred Stock was originally sold by the Company as part of a private placement of Units consisting of 10,000 shares of Series A Preferred Stock and 20,000 shares of Common Stock (the "Private Placement Units") in January and February 1992 (the "1992 Private Placement"). A total of 100 Private Placement Units were sold in the 1992 Private Placement at a purchase price of $50,000 per unit. In addition, the placement agent for the 1992 Private Placement, D.H. Blair Investment Banking Corp. ("Blair"), received options to purchase ten Private Placement Units, or an aggregate of 100,000 shares of Series A Preferred Stock and 200,000 shares of Common Stock, at a purchase price of $50,000. Blair transferred to Peter Janssen options to purchase three Private Placement Units and to Bruce Meyers options to purchase two Private Placement Units. These options were exercised in February 1997. The Company has filed a Registration Statement on Form S-3 registering 150,000 of such shares.

CLASS A WARRANTS AND CLASS B WARRANTS ("BRIDGE WARRANTS")

There were 782,720 outstanding Bridge Warrants ("Bridge Warrants") as of April 5, 1999 to purchase an aggregate of 313,088 shares of Common Stock. Each warrant entitles the holder to purchase four-tenths of a share of Common Stock. The Bridge Warrants consist of 300,000 Class A Warrants to purchase 120,000 shares of Common Stock and 482,720 Class B Warrants to purchase 193,088 shares of Common Stock. The Class A Warrants are exercisable at $3.75 per share of Common Stock and the Class B Warrants are exercisable at $4.375 per share of Common Stock. The Bridge Warrants are all currently exercisable and expire in November 2000. The Bridge Warrants contain provisions that protect holders thereof from dilution by adjustment of the exercise price and rate in the event of a merger, acquisition, recapitalization or split-up of shares of the Company, the issuance by the Company of a stock dividend, sales of stock below current market price and other unusual events. In addition, Blair was granted options to acquire up to 506,250 Bridge Warrants to purchase 202,500 shares of Common Stock at an exercise price of $3.75 per share (the "Blair Warrants"). These options were granted to Blair as part of its compensation for services as placement agent in the Company's Bridge Financing which was completed in August 1994 and in connection with the waiver of certain rights. 150,000 shares of Common Stock issuable upon exercise of the Bridge Warrants have been registered by the Company on an effective Registration Statement with the Commission. See "Bridge Financings."

CLASS C WARRANTS AND CLASS D WARRANTS

The following discussion of the terms and provisions of the Class C and Class D Warrants is qualified in its entirety by reference to the warrant agreement (the "Warrant Agreement") between the Company, JMA and American Stock Transfer and Trust Company, the warrant agent (the "Warrant Agent"). The Warrants will be evidenced by warrant certificates in registered form.

As of April 5, 1999, the Company has 2,006,073 Class C Warrants and 2,510,927 Class D Warrants (other than the Bridge Warrants) outstanding.

Class C Warrants. The holder of each Class C Warrant is entitled to purchase one share of Common Stock and one Class D Warrant at an aggregate exercise price of $6.50. The Class C Warrants are exercisable at any time until November 2, 2000, provided that at such time a current prospectus under the Securities Act relating to the Common Stock and the Class D Warrants is then in effect and the Common Stock and the Class D Warrants are qualified for sale or exempt from qualification under applicable state securities laws. The Class C Warrants are subject to redemption, as described below.

Class D Warrants. The holder of each Class D Warrant is entitled to purchase one share of Common Stock at an exercise price of $8.75. The Class D Warrants are exercisable at any time after issuance until November 2, 2000, provided that at such time a current prospectus under the Securities Act relating to the Common Stock is then in effect and the Common Stock is qualified for sale or exempt from qualification under applicable state securities laws. The Class D Warrants issuable upon exercise of the Class C Warrants are, upon issuance, transferable separately from the Common Stock and Class C Warrants. The Class D Warrants are subject to redemption, as described below.

Redemption. Since November 2, 1996, the Warrants have been subject to redemption at the option of the Company, on not less than 30 days' prior written notice, at a price of $.05 per Warrant, if the average closing bid price of the Common Stock for any 30 consecutive business day period ending within 15 business days of the date on which the notice of redemption is given exceeds $9.10 per share, subject to adjustment, with respect to the Class C Warrants and $12.25 per share, subject to adjustment, with respect to the Class D Warrants. For these purposes, the closing bid price of the Common Stock shall be

determined by the closing bid price, as reported by Nasdaq, so long as the Common Stock is quoted on the Nasdaq SmallCap Market or if the Common Stock is a Nasdaq National Market security or listed on a securities exchange, shall be determined by the last reported sales price. The Company's redemption rights will be in effect only if the Common Stock is either quoted on Nasdaq or listed on a securities exchange. Holders of Warrants will automatically forfeit their rights to purchase the shares of Common Stock issuable upon exercise of such Warrants unless the Warrants are exercised before they are redeemed. All of the outstanding Warrants of a class, except for those underlying the IPO Unit Purchase Option, must be redeemed if any portion of that class are to be redeemed. The Warrants underlying the IPO Unit Purchase Option are subject to redemption if, at the time of a call for redemption, the IPO Unit Purchase Option has been exercised and such Warrants are then outstanding. A notice of redemption will be mailed to each of the registered holders of the Warrants no later than 30 days before the date fixed for redemption. The notice of redemption shall specify the redemption price, the date fixed for redemption, the place where the Warrant certificates shall be delivered and the date of expiration of the right to exercise the Warrants.

IPO Unit Purchase Option. Pursuant to an agreement by and between the Company and the Underwriters in the IPO, the Company sold to the Underwriters, or their designee(s), for nominal consideration, a unit purchase option (the "IPO Unit Purchase Option") to purchase up to an aggregate of 200,000 Units at $8.25 per Unit, subject to certain anti-dilution adjustments. The Units purchasable upon exercise of the IPO Unit Purchase Option are identical to the Units offered in the IPO, except that the Warrants issuable in connection therewith are subject to redemption, if at the time of a call for redemption the IPO Unit Purchase Option has been exercised and such Warrants are then outstanding, and have certain different anti-dilution provisions. The IPO Unit Purchase Option will be exercisable during the two-year period commencing on November 2, 1998. The IPO Unit Purchase Option is not transferable for the three-year period commencing on the date of issuance, except that it may be assigned in whole or in part to any officer of the underwriters or member of the selling group. During the term of the IPO Unit Purchase Option, the holder thereof is given, at nominal cost, the opportunity to profit from a rise in the market price of the Common Stock by exercising such Option, with a resulting dilution in the interests of other Company stockholders. As a result, the Company may find it more difficult to raise additional equity capital if it should be needed for the operation of the Company while the IPO Unit Purchase Option is outstanding. Moreover, at any time when the holder(s) of the IPO Unit Purchase Option might be expected to exercise it, the Company would probably be able to obtain additional equity capital

on terms more favorable than those provided by the IPO Unit Purchase Option. The Company has agreed to register under the Securities Act on two separate occasions, the first at its own expense, the IPO Unit Purchase Option and/or the securities underlying it at the request of the holder thereof. The Company has also agreed to provide certain "piggy-back" registration rights for the holder(s) of the IPO Unit Purchase Option and/or the securities underlying it.

General. The Warrants may be exercised upon surrender of the certificate therefor on or prior to the expiration or redemption date (as explained above) at the offices of the Company's Warrant Agent with the form of "Election to Purchase" on the reverse side of the certificate filled out and executed as indicated, accompanied by payment (in the form of a certified or cashier's check payable to the order of the Company) of the full exercise price for the number of Warrants being exercised. The Company, in its discretion, has the right to reduce the exercise price of either or both classes of Warrants subject to compliance with Rule 13e-4 promulgated under the Exchange Act, if applicable.

The Warrants contain provisions that protect the holders thereof against dilution by adjustment of the exercise price and rate in certain events, such as stock dividends, stock splits or combinations, mergers, sales of all or substantially all of the Company's assets at less than market value, sales of stock at below market price and other unusual events.

The Company is not required to issue fractional shares and in lieu thereof will make a cash payment based upon the current market value of such fractional shares (determined as the mean between the last reported bid and asked prices reported or, if the Common Stock is quoted on the Nasdaq National Market System or traded on a securities exchange, the last reported sales price, in each case as of the last business day prior to the date of exercise). The holder of a Warrant will not have any rights as a stockholder of the Company unless and until the Warrant is exercised.

CLASS E WARRANTS

In April 1998, the Company completed a private placement of 56.3 Units under Rule 506 of Regulation D and Section 4(2) of the Securities Act (the "1998 Private Placement"). Each Unit consisted of Common Stock and Class E Warrants. The number of shares of Common Stock each investor purchased was determined by dividing the price of a Unit, $100,000, by the 30-day average closing bid price of the Common Stock as reported by the Nasdaq SmallCap Market. The average closing bid price ranged from $8.18 to $9.46 during the eight separate closings of the 1998 Private Placement. The number of Class E Warrants each investor purchased was equal to one-half the number of shares of Common Stock each such investor purchased in the same closing having an exercise price equal to 120% of the purchase price of the Common Stock. Each Class E Warrant entitles the holder to purchase one share of Common Stock at any time until April 2, 2003, 5:00 p.m. (EST). The Company also granted a unit purchase option to Jansen-Meyers Associates, L.P. ("JMA") for its services as placement agent in the 1998 Private Placement. JMA has the right to purchase 20% of the Units sold in the 1998 Private Placement until April 2, 2003, 5:00 p.m. (EST) at a purchase price equal to purchase price of the Units. The unit purchase option is exercisable for 134,199 shares of Common Stock at prices ranging from $8.18 to $9.46 per share and Class E Warrants to purchase 67,101 shares of Common Stock at exercise prices ranging from $9.82 to $11.35 per share.

TRANSFER AGENT AND WARRANT AGENT

American Stock Transfer and Trust Company will serve as the Transfer Agent for the Common Stock and Warrants and as Warrant Agent for the Warrants.

REGISTRATION RIGHTS

As of April 5, 1999, holders of (i) 2,000,000 shares of Common Stock outstanding, (ii) options to purchase 200,000 shares of Common Stock, (iii) 757,673 shares of Series A Preferred Stock convertible into an equal number of shares of Common Stock and (iv) options to purchase 100,000 shares of Series A Preferred Stock convertible into an equal number of shares of Common Stock (the Common Stock referred to in (i) through (iv) above, collectively, the "Registrable Securities") are entitled to demand and "piggy-back" registration rights with respect to such Registrable Securities through November 2, 2000. The holders of more than 50% of the Registrable Securities may request that the Company file a registration statement under the Securities Act, and, subject to certain conditions, the Company generally will be required to use its best efforts to effect any such registration. In addition, if the Company proposes to register

any of its securities, either for its own account or for the account of other stockholders, the Company is required, with certain exceptions, to notify the holders described above and, subject to certain limitations, to include in the first two such registration statements filed by November 2, 2000, all of the shares of the Registrable Securities requested to be included by such holders. In addition, the Company has (i) registered the 810,000 shares of Common Stock issuable upon the exercise of the Bridge Warrants (including the warrants underlying the option granted to the placement agent of the 1994 Bridge Financing); (ii) registered 150,000 shares of Common Stock issuable upon exercise of the Blair Warrants; (iii) granted certain "piggy-back" registration rights to the holders of 20,000 shares of Common Stock issued by the Company in

connection with the formation of the joint venture with Pestka Biomedical Laboratories, Inc.; (iv) registered 750,000 shares of Common Stock issuable upon exercise of options authorized for grant under the 1996 Plan, as amended; (v) granted certain "piggy-back" registration rights to the holders of options and warrants to acquire an aggregate of 170,000 shares of Common Stock granted and issued in connection with financial advisory and public relations services rendered to the Company and pursuant to a license agreement. The exercise of one or more of these registration rights may involve substantial expense to the Company and may adversely affect the terms upon which the Company may obtain additional financing.

BUSINESS COMBINATION PROVISIONS

The Company is subject to a Delaware statute regulating "business combinations," defined to include a broad range of transactions, between Delaware corporations and "interested stockholders," defined as persons who have acquired at least 15% of a corporation's stock. Under the law, a corporation may not engage in any business combination with any interested stockholder for a period of three years from the date such person became an interested stockholder unless certain conditions are satisfied. The statute contains provisions enabling a corporation to avoid the statute's restrictions.

At this time, the Company will not seek to "elect out" of the statute and, therefore, upon closing of this offering and the registration of its securities under the Exchange Act, the restrictions imposed by such statute will apply to the Company.

BRIDGE FINANCINGS

In order to fund its continuing operations, the Company completed two Bridge Financings, one in August 1994 ("1994 Bridge Financing") and one in April 1995 ("1995 Bridge Financing"). In connection with the 1994 Bridge Financing, the Company issued (i) an aggregate of $1,000,000 in principal amount of 9%, Subordinated Notes ("1994 Notes") and (ii) an aggregate of 500,000 Class A Warrants to purchase an aggregate of 200,000 shares of the Company's Common Stock exercisable at $3.75 until November 2, 2000 (the "Class A Warrants," of which 300,000 Class A Warrants are outstanding as of April 5, 1999 to purchase 120,000 shares of Common Stock). In connection with the 1995 Bridge Financing, the Company issued (i) an aggregate of $2,037,500 in principal amount of 9% Subordinated Notes ("1995 Notes," and together with the 1994 Notes, the "Bridge Notes") and (ii) an aggregate of 1,018,750 Class B Warrants to purchase an aggregate of 407,500 shares of the Company's Common Stock exercisable at $4.375 until November 2, 2000 (the "Class B Warrants," of which 482,720 are outstanding as of April 5, 1999 to purchase 193,088 shares of Common Stock, and together with the Class A Warrants, the " Bridge Warrants"). The Company repaid the 1994 Notes and 1995 Notes in 1995, including $400,000 of the Notes which were past due, from the net proceeds of the IPO. In addition, warrants were issued to the placement agent of the 1994 Bridge Financing, as described below.

In connection with the 1994 Bridge Financing, Blair acted as placement agent. In consideration of these services, the Company paid to Blair a fee equal to $120,000, a non-accountable expense allowance of $10,000 and an option to acquire warrants to purchase up to an aggregate of 66,667 shares of the Company's Common Stock at an exercise price of $3.75 per share. In addition, in connection with the 1994 Bridge Financing, the Company executed a merger and acquisition agreement ("M/A Agreement") with Blair and granted Blair a right of first refusal with respect to offerings of securities of the Company. In anticipation of the 1995 Bridge Financing, all such rights of Blair with respect to the M/A Agreement and right of first refusal were canceled in consideration of the payment by the Company to Blair of $50,000. In addition, pursuant to a consulting agreement with the Company, Blair rendered investment banking advice and assistance in structuring the 1995 Bridge Financing. In consideration of these services, the Company granted Blair an option to acquire warrants equaling 33-1/3% of all warrants issued in connection with the 1995 Bridge Financing. Such warrants to purchase an aggregate of 135,833 shares of Common Stock provide for an exercise price of $3.75 per share. The holders of these warrants issued to the placement agent of the 1994 Bridge Financing have certain demand and "piggy-back" registration rights.

JMA acted as placement agent for the 1995 Bridge Financing and in consideration thereof received a fee of $203,750 plus a non-accountable expense allowance of $61,125. In addition, JMA was granted, in connection with its services as Placement Agent for the 1995 Bridge Financing, a (i) five-year right of first refusal to act as agent for offerings of securities by the Company and certain of its shareholders and (ii) merger and acquisition agreement.

The aggregate net proceeds to the Company from the issuance of its Bridge Notes and Bridge Warrants were approximately $2,500,000. The Company used the proceeds from the 1994 Bridge Financing to fund its operations (including paying for research and development activities, operating expenses and accrued liabilities, and for officers compensation) and a portion of the expenses of the 1994 Bridge Financing and the 1995 Bridge Financing.

1998 PRIVATE PLACEMENT

In April 1998, the Company completed a private placement of 56.3 Units consisting of an aggregate of 671,026 shares of Common Stock and Class E Warrants to purchase 335,540 shares of Common Stock (the "Private Placement Warrants") for a purchase price of $100,000 per Unit pursuant to Section 4(2) and the provisions of Regulation D promulgated under the Securities Act (the "1998 Private Placement"). Each Unit consisted of (i) a number of shares determined by dividing $100,000 by the average closing bid price for the Common Stock for the 30 consecutive trading days immediately preceding the date of the respective closing (the "Average Closing Bid Price") and (ii) a number of Private Placement Warrants to purchase one-half of such number of shares of Common Stock. Each Private Placement Warrant entitles the holder thereof to purchase one share of Common Stock of the Company at any time after the closing until 5:00 p.m. EST on April 2, 2003 at an exercise price equal to 120% of the Average Closing Bid Price, subject to anti-dilution adjustment in certain circumstances. The Company filed a registration statement under the Securities Act, therein registering the shares of Common Stock and the shares issuable upon the exercise of the Private Placement Warrants in October 1998. Also, the Company has undertaken to maintain the effectiveness of such registration statement until the expiration of the Private Placement Warrants, April 2, 2003. JMA acted as placement agent for the 1998 Private Placement pursuant to a Placement Agency Agreement, dated March 31, 1998, and in consideration for its services as such, received a commission equal to 10% of the gross proceeds from the sale of the Units, a 3% nonaccountable expense allowance and reimbursement for other costs, including legal expenses relating to the offering. JMA also received warrants to purchase 20% of the number of Units sold in the 1998 Private Placement, for 134,199 shares of Common Stock at exercise prices ranging from $8.18 to $9.46, and warrants for 67,101 shares of Common Stock at exercise prices ranging from $9.816 to $11.352, per share exercisable for a five-year period, commencing April 2, 1998 until April 2, 2003. The Company used the proceeds of the 1998 Private Placement for working capital, including research and development. See "-Description of Securities-Class E Warrants."

SHARES ELIGIBLE FOR FUTURE SALE

The Company has 10,290,380 shares of Common Stock outstanding. Holders of the Class C and Class D Warrants will be entitled to purchase an aggregate of 6,523,073 additional shares of Common Stock upon the exercise of such Warrants until November 2, 2000, provided that the Company satisfies certain securities registration and qualification requirements with respect to the securities underlying such Warrants. All shares of Common Stock purchased upon exercise of the Warrants will be freely tradeable without restriction under the Securities Act (provided that such registration and qualification requirements are met), except for any shares purchased by any person who is or thereby becomes an "affiliate" of the Company, which shares may be subject to the resale limitations contained in Rule 144 promulgated under the Securities Act.

Up to 800,000 additional shares of Common Stock, may be purchased by the Underwriters in connection with the IPO through the exercise of the IPO Unit Purchase Option and the warrants included therein (including the Class D Warrants issuable upon exercise of the Class C Warrants included therein) (collectively, the "Option Warrants"). Any and all shares of Common Stock purchased upon exercise of the Option Warrants may be freely tradeable, provided that the Company satisfies certain securities registration and qualification requirements in accordance with the terms of the IPO Unit Purchase Option.

A significant number of shares of Common Stock and shares of Common Stock issuable upon the conversation of the Series A Preferred Stock, none of which are being offered hereby, are "restricted securities" within the meaning of Rule 144 promulgated under

the Securities Act and, if held for at least one year (which a substantial portion, if not all, of the shares are), may be eligible for sale in the public market in reliance upon Rule 144 following the expiration of such period.

In general, under Rule 144, a person (or persons whose shares are aggregated), including a person who may be deemed to be an "affiliate" of the Company as that term is defined under the Securities Act, will be entitled to sell within any three-month period a number of shares beneficially owned for at least one year that does not exceed the greater of (i) one (1%) percent of the then outstanding shares of Common Stock, or (ii) the average weekly trading volume in the Common Stock during the four calendar weeks preceding such sale. Sales under Rule 144 are also subject to certain requirements as to the manner of sale, notice and the availability of current public information about the Company. Moreover, a person who is not deemed to have been an affiliate of the Company during the 90 days preceding a sale by such person, and who has beneficially owned shares of Common Stock for at least two years, may sell such shares without regard to the volume, manner of sale or notice requirements of Rule 144.

The Company cannot predict the effect, if any, that sales of Common Stock pursuant to Rule 144 or otherwise, or the availability of such shares for sale, will have on the market price prevailing from time to time. Nevertheless, sales by the existing stockholders of substantial amounts of Common Stock in the public market could adversely affect prevailing market prices for the Common Stock. In addition, the availability for sale of a substantial amount of Common Stock acquired through the exercise of the Warrants and the IPO Unit Purchase Option could adversely affect prevailing market prices for the Common Stock.

PLAN OF DISTRIBUTION

The securities offered hereby are being offered directly by the Company pursuant to the terms of the Warrants. No underwriter is being utilized in connection with this offering.

The Company has agreed to pay JMA a fee (the "Solicitation Fee") equal to 5% of the aggregate exercise price of all Warrants exercised, provided that (i) the market price of the Common Stock on the date that the Warrants are exercised is greater than the Warrant exercise price; (ii) the exercise of the Warrants was solicited by JMA or its representative or agent and the warrantholder designates in writing that the exercise was solicited thereby; (iii) the Warrants are not held in a discretionary account; (iv) disclosure of this compensation arrangement is made by JMA at the time of the exercise of the Warrants; and (v) the solicitation of the exercise of the Warrants was not in violation of Rule 10b-6 promulgated under the Exchange Act. JMA will generally be prohibited, pursuant to Rule 10b-6, from engaging in market-making activities with regard to the Company's securities for a period specified by Rule 10b-6 promulgated under the Exchange Act prior to any solicitation of the exercise of Warrants until the termination of such solicitation. Accordingly, JMA may be unable to provide a market for the Company's securities during certain periods

while the Warrants are exercisable.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for the Company by Morrison Cohen Singer & Weinstein, LLP, New York, New York. A partner of Morrison Cohen Singer & Weinstein, LLP holds options to acquire shares of Common Stock. Certain legal matters with respect to information contained in this Prospectus under the headings "Risk Factors -- Royalty Obligations; Possible Loss of Patents and Other Proprietary Rights," " -- Uncertain Ability to Protect Proprietary Technology" and "Business -- Patents, Licenses and Proprietary Rights" will be passed upon for the Company by Gardere & Wynne, L.P., Dallas, Texas.

EXPERTS

The balance sheets as at December 31, 1998 and 1997 and the related statements of operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1998, included in this Prospectus have been audited by, and are included herein in reliance upon the report of Richard A. Eisner & Company, LLP, independent auditors, given on the authority of that firm as experts in accounting and auditing.

ADDITIONAL INFORMATION

The Company has filed Post-Effective Amendment No. 5 to the Registration Statement on Form SB-2 (File No.: 33-91802) (the "Registration Statement") under the Securities Act with the Securities and Exchange Commission (the "Commission") in Washington, D.C. with respect to the shares of Common Stock and Warrants offered hereby. This Prospectus, which is part of the Registration Statement, does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company, the Common Stock and the Warrants offered hereby, reference is hereby made to the Registration Statement and such exhibits and schedules, which may be inspected without charge at the office of the Commission at 450 Fifth Street, NW, Washington, D.C. 20549 and at its regional offices at 7 World Trade Center, New York, New York 10048. Copies of such material may also be obtained at prescribed rates from the Public Reference Section of the Commission. The Commission maintains a World Wide Web site on the Internet at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. Statements contained in this Prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of such contract or document filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference.

INDEX TO FINANCIAL STATEMENTS

<TABLE>
<CAPTION>

</TABLE>

INDEPENDENT AUDITORS' REPORT

Board of Directors and Stockholders
Cytoclonal Pharmaceutics Inc.
Dallas, Texas

We have audited the accompanying balance sheets of Cytoclonal Pharmaceutics Inc. as of December 31, 1998 and 1997, and the related statements of operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements enumerated above present fairly, in all material respects, the financial position of Cytoclonal Pharmaceutics Inc. as of December 31, 1998 and 1997, and results of its operations and its cash flows for each of the years in the three-year period ended December 31, 1998, in conformity with generally accepted accounting principles.

Richard A. Eisner & Company, LLP

New York, New York
February 6, 1999

CYTOCLONAL PHARMACEUTICS INC.

BALANCE SHEETS

ASSETS

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1998	1997
<S>	<C>	<C>
Current assets:		
Cash and cash equivalents (Note B[5])	$ 6,826,000	$ 1,849,000
Prepaid expenses and other current assets	85,000	35,000
Total current assets	6,911,000	1,884,000
Equipment, net (Notes B[1] and E)	121,000	127,000
Patent rights, less accumulated amortization of $540,000 and $463,000 (Notes B[2] and C)	710,000	787,000
Other assets	4,000	4,000
	$ 7,746,000	$ 2,802,000
LIABILITIES		
Current liabilities:		
Accounts payable and accrued expenses (Note F)	$ 461,000	$ 460,000
Deferred revenue	67,000	
Current portion of royalties payable (Note C)	156,000	94,000
Total current liabilities	684,000	554,000
Royalties payable (Note C)	1,000,000	1,125,000
	1,684,000	1,679,000
Commitments and other matters (Notes C and I)		
STOCKHOLDERS' EQUITY (NOTE G)		
Preferred stock -- $.01 par value, 10,000,000 shares authorized; 746,864 and 934,563 shares of Series A convertible preferred issued and outstanding (liquidation value $1,872,000 and $2,336,000)	7,000	9,000
Common stock -- $.01 par value, 30,000,000 shares authorized; 10,209,844 and 8,793,998 shares issued and outstanding	102,000	88,000
Additional paid-in capital	23,785,000	16,130,000
Accumulated deficit	(17,832,000)	(15,104,000)
	6,062,000	1,123,000
	$ 7,746,000	$ 2,802,000

</TABLE>

See notes to financial statements

CYTOCLONAL PHARMACEUTICS INC.

STATEMENTS OF OPERATIONS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,		
	1998	1997	1996
<S>	<C>	<C>	<C>
Revenue:			
License and research fees (Note D)	$ 1,183,000		
Operating expenses:			
Research and development	1,692,000	$ 1,469,000	$ 1,576,000
General and administrative	2,500,000	1,888,000	1,530,000

	4,192,000	3,357,000	3,106,000
Other (income) expenses:			
Interest income	(286,000)	(107,000)	(216,000)
Interest expense	5,000	2,000	
	(281,000)	(105,000)	(216,000)
Net loss	$(2,728,000)	$(3,252,000)	$(2,890,000)
Basic and diluted net loss per common share	$ (.30)	$ (.42)	$ (.42)
Weighted average number of shares outstanding -- basic and diluted (Note B[4])	9,742,000	8,268,000	7,640,000

</TABLE>

See notes to financial statements

CYTOCLONAL PHARMACEUTICS INC.

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (NOTE G)

<TABLE>
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	CONVERTIBLE PREFERRED STOCK		COMMON STOCK		ADDITIONAL PAID-IN	ACCUMULATED	
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	DEFICIT	TOTAL
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
BALANCE -- DECEMBER 31, 1995	1,268,787	$13,000	7,563,500	$ 76,000	$13,903,000	$ (8,962,000)	$ 5,030,000
Preferred dividend (stock)	126,888	1,000			(1,000)		0
Preferred stock converted to common stock	(167,046)	(2,000)	167,046	2,000			0
Value assigned to 20,000 ($2.29) and 100,000 ($0.84) options issued for professional services					130,000		130,000
Value assigned to 36,000 warrants ($1.17) issued and charged to research and development					42,000		42,000
Net loss for the year						(2,890,000)	(2,890,000)
BALANCE -- DECEMBER 31, 1996	1,228,629	12,000	7,730,546	78,000	14,074,000	(11,852,000)	2,312,000
Preferred dividend (stock)	122,788	1,000			(1,000)		0
Preferred stock converted to common stock	(466,854)	(5,000)	466,854	5,000			0
Exercise of unit purchase option	50,000	1,000	250,000	2,000	497,000		500,000
Exercise of warrants			277,098	2,000	1,309,000		1,311,000
Exercise of options			69,500	1,000	118,000		119,000
Value assigned to 10,000 ($1.45) and 40,000 ($2.88) options issued for professional services					133,000		133,000
Net loss for the year						(3,252,000)	(3,252,000)
BALANCE -- DECEMBER 31, 1997	934,563	9,000	8,793,998	88,000	16,130,000	(15,104,000)	1,123,000
Preferred dividend (stock)	94,680	1,000			(1,000)		0
Preferred stock converted to common stock	(282,379)	(3,000)	282,379	3,000			0
Exercise of warrants			389,241	4,000	2,495,000		2,499,000
Exercise of options			73,200	1,000	130,000		131,000
Value assigned to 5,000 ($3.11), 12,500 ($3.47) and 37,500 ($3.68) options issued for professional services					197,000		197,000
Private placement			671,026	6,000	4,831,000		4,837,000
Other					3,000		3,000

Net loss for the year.....					(2,728,000)	(2,728,000)	
BALANCE -- DECEMBER 31, 1998....	746,864	$ 7,000	10,209,844	$102,000	$23,785,000	$(17,832,000)	$ 6,062,000

</TABLE>

See notes to financial statements

CYTOCLONAL PHARMACEUTICS INC.

STATEMENTS OF CASH FLOWS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,		
	1998	1997	1996
<S>	<C>	<C>	<C>
Cash flows from operating activities:			
Net loss.....	$(2,728,000)	$(3,252,000)	$(2,890,000)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization.....	131,000	116,000	115,000
Value assigned to warrants and options.....	197,000	133,000	172,000
Equity in loss of joint venture.....		16,000	23,000
Changes in:			
Other assets.....	(50,000)		(3,000)
Deferred revenue.....	67,000		
Accounts payable and accrued expenses.....	29,000	123,000	74,000
Net cash used in operating activities.....	(2,354,000)	(2,864,000)	(2,509,000)
Cash flows from investing activities:			
Purchase of equipment.....	(76,000)	(44,000)	(75,000)
Cash flows from financing activities:			
Net proceeds from private placement.....	4,837,000		
Payment of royalties payable.....	(63,000)	(31,000)	
Proceeds from exercise of options and warrants.....	2,630,000	1,430,000	
Other.....	3,000		
Proceeds from exercise of unit purchase option.....		500,000	
Net cash provided by financing activities...	7,407,000	1,899,000	
Net increase (decrease) in cash and cash equivalents.....	4,977,000	(1,009,000)	(2,584,000)
Cash and cash equivalents at beginning of year.....	1,849,000	2,858,000	5,442,000
Cash and cash equivalents at end of year.....	$ 6,826,000	$ 1,849,000	$ 2,858,000
Supplemental disclosures of cash flow information:			
Cash paid for interest.....	$ 5,000	$ 2,000	
Noncash investing activities:			
Equipment acquired included in accounts payable and accrued expenses.....		$ 28,000	$ 10,000

</TABLE>

See notes to financial statements

CYTOCLONAL PHARMACEUTICS INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 1998 AND 1997

NOTE A -- THE COMPANY

Cytoclonal Pharmaceutics Inc. (the "Company") is involved in the research and development of various therapeutic and diagnostic pharmaceutical products

for the prevention of cancer, viral and immune diseases. Through June 1998, the Company was in the development stage and its efforts had been principally devoted to research and development, capital formation and organizational development.

NOTE B -- SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

[1] EQUIPMENT:

Equipment is stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the assets which range from five to seven years. Leasehold improvements are amortized over the lesser of the economic useful life of the improvement or term of the lease whichever is shorter.

[2] PATENT RIGHTS AND COSTS:

Purchased patents, which were acquired in October 1991, are stated at cost and are being amortized using the straight-line method over the 17 year life of the patents.

[3] RESEARCH AND DEVELOPMENT:

Research and development costs are charged to expense as incurred.

[4] LOSS PER COMMON SHARE:

Basic and diluted loss per common share is based on the net loss increased by dividends on preferred stock ($187,000 in 1998, $234,000 in 1997 and $307,000 in 1996) divided by the weighted average number of common shares outstanding during the year. No effect has been given to outstanding options, warrants or convertible preferred stock in the diluted computation as their effect would be antidilutive.

[5] CASH AND CASH EQUIVALENTS AND CONCENTRATION OF CREDIT RISK:

Financial instruments which potentially subject the Company to concentration of credit risk consist of cash equivalents which amount to $6,826,000 at December 31, 1998. Cash equivalents consist of interest bearing cash deposits placed with a single financial institution. The Company considers all highly liquid short-term investments purchased with a maturity of three months or less to be cash equivalents.

[6] STOCK-BASED COMPENSATION:

The Company has elected to continue to account for its stock-based compensation plans using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25"). Under the provisions of APB No. 25, compensation cost for stock options is measured as the excess, if any, of the quoted market price of the Company's common stock at the date of the grant over the amount an employee must pay to acquire the stock.

[7] FAIR VALUE OF FINANCIAL INSTRUMENTS:

The carrying value of cash equivalents, accounts payable and accrued expenses approximates their fair value due to the short period to maturity of these instruments. It is not practicable to estimate the fair value of royalties payable due to repayment terms varying based on sales of products by the Company and the lack of such sales at December 31, 1998.

[8] USE OF ESTIMATES:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial

statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

[9] REVENUE RECOGNITION:

Revenue from research support agreements is recognized as the expenses for research and development activities performed under the terms of the agreements are incurred. Revenue from nonrefundable license fees is recognized upon signing the agreement. Revenue resulting from the achievement of milestones is recognized when the milestone is achieved. Amounts received in advance of services to be performed are recorded as deferred revenue.

NOTE C -- ROYALTIES PAYABLE

On October 10, 1991, the Company entered into an agreement to acquire certain patent rights, technology and know-how (the "Technology") from Wadley Technologies, Inc. ("Wadtech") for the fixed sum of $1,250,000 and ongoing royalties.

The agreement provides for the payment of royalties of up to 6.25% of gross selling price of products incorporating the Technology and up to 50% of all compensation received by the Company for sales by sublicensees of any products covered by the Technology, which will be applied to reducing the fixed sum of $1,250,000, until the fixed sum is paid. Thereafter, the agreement provides for the payment of royalties of up to 3.75% of gross selling price of products incorporating the Technology and up to 50% of all compensation received by the Company for sales by sublicensees of any products covered by the Technology. The agreement also provides for minimum annual royalty payments of $31,250, $62,500 and $125,000 payable quarterly during each twelve-month period beginning October 1, 1996, 1997 and 1998, respectively. Thereafter, during each twelve-month period beginning October 1, 1999, the agreement provides for minimum annual royalty payments of $125,000 payable quarterly. As of December 31, 1998, the Company has made payments of $93,750.

The Company granted Wadtech a security interest in the Technology until the fixed sum is paid. The agreement continues for 99 years from October 10, 1991 and the Company has the option to terminate the agreement without cause on three months notice to Wadtech.

NOTE D -- LICENSE AND RESEARCH AGREEMENT

In June 1998, the Company entered into a license and research agreement with Bristol Myers Squibb ("BMS") applicable to two technologies, which are being sublicensed by the Company to BMS, related to production of Paclitaxel, the active ingredient in BMS's largest selling cancer product. The agreement, which is for a term of ten years, subject to earlier termination at the option of BMS, includes fees, milestone payments, research and development support and minimum and sales-based royalties to be paid to the Company. During the year ended December 31, 1998, revenues of $1,183,000 were earned under the agreement.

NOTE E -- EQUIPMENT

Equipment is summarized as follows:

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1998	1997
<S>	<C>	<C>
Office equipment	$ 42,000	$ 36,000
Furniture and fixtures	16,000	16,000
Computers and laboratory equipment	327,000	286,000
Leasehold improvements	8,000	8,000
Total	393,000	346,000

Less accumulated depreciation and amortization.....	272,000	219,000
Net.....	$121,000	$127,000

NOTE F -- ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consist of the following:

	DECEMBER 31,	
	1998	1997
Professional fees.....	$ 99,000	$ 73,000
Equipment.....		28,000
Payroll and related expenses.....	170,000	171,000
Licensors and contractors.....	167,000	150,000
Occupancy costs.....	12,000	12,000
Other.....	13,000	26,000
	$461,000	$460,000

NOTE G -- STOCKHOLDERS' EQUITY

[1] PRIVATE PLACEMENT:

In April and May 1998, the Company completed a private placement for an aggregate of 671,026 shares of common stock and 335,540 Class E warrants and received net proceeds of approximately $4,837,000.

[2] PREFERRED STOCK:

On January 6, 1992, the Board of Directors designated 4,000,000 shares of preferred stock as Series A convertible preferred stock. The holders of Series A preferred stock are entitled to (i) convert on a one-for-one basis to common stock subject to adjustment, as defined, (ii) voting rights equivalent to voting rights of common stockholders, (iii) receive dividends equal to $.25 per share payable on or about January 15 each year in cash or newly-issued shares of Series A preferred or a combination thereof (iv) liquidation preferences of $2.50 per preferred share and (v) certain demand and piggyback registration rights with respect to the common shares issuable upon conversion.

The Company, at its option, has the right to redeem all or any portion of the Series A convertible preferred stock at $2.50 per share plus accrued and unpaid dividends.

[3] WARRANTS:

At December 31, 1998, outstanding warrants to acquire shares of the Company's common stock are as follows:

WARRANT TYPE	EXERCISE PRICE	EXPIRATION DATE	NUMBER OF SHARES RESERVED
Class A.....	$3.75	November 2000	125,000
Class B.....	$4.375	November 2000	193,088
Class C.....	$6.50	November 2000	2,006,073

Class D.....	$8.75	November 2000	4,517,000
Class E.....	$9.82 to $11.35	April 2003	335,540
Other.....	$4.25 to $9.00	July 2002-August 2003	111,000(a)
			7,287,701

</TABLE>

- ----------

(a) See Notes I[3] and I[4]

The Class C and Class D warrants are subject to redemption at $.05 per warrant on 30 days prior written notice provided the average of the closing bid prices of the common stock for any period of 30 consecutive business days ending within 15 business days of the date on which the notice of redemption is given shall have exceeded $9.10 per share for redemption of the Class C warrants and $12.25 per share for redemption of the Class D warrants.

Each Class C warrant entitles the holder to purchase a unit consisting of one share of common stock and one redeemable Class D detachable warrant. Each Class D warrant entitles the holder to purchase one share of common stock. The Class D Warrants reflected in the above table include 2,006,073 warrants which are issuable upon the exercise of the outstanding Class C Warrants.

In addition to the above, options are outstanding to purchase 506,250 warrants at $.10 per warrant. These warrants are exerciseable into an aggregate of 202,500 shares of common stock through November 2000 at a price of $3.75 per share.

In connection with its initial public offering, the Company sold to the underwriter, at a nominal amount, a unit purchase option to purchase up to an aggregate of 200,000 additional units at $8.25 per unit. The units purchasable upon exercise of the unit purchase option are comprised of one share of common stock, one Class C warrant and one Class D warrant. The warrants included therein are not subject to redemption by the Company. These units became exerciseable November 1998 for a two-year period.

See Note I[5] for unit purchase option issued in connection with private placement in 1998.

[4] STOCK OPTIONS:

During 1992, the Board of Directors and the stockholders of the Company approved a Stock Option Plan (the "1992 Plan") which provides for the granting of options to purchase up to 520,000 shares of common stock, pursuant to which officers, directors, key employees and the Company's Scientific Advisory Board are eligible to receive incentive and/or nonstatutory stock options.

During 1996, the Board of Directors and the stockholders of the Company approved the 1996 Stock Option Plan (the "1996 Plan") which provides for the granting of incentive and nonstatutory options for up to 750,000 shares of common stock to officers, employees, directors and consultants of the Company. During October 1998, the Board of Directors and the stockholders of the Company approved an amendment to the Plan to allow for the granting of an additional 750,000 options.

Options granted under the 1992 Plan and the 1996 Plan are exercisable for a period of up to 10 years from date of grant at an exercise price which is not less than the fair value on date of grant, except that the exercise period of options granted to a stockholder owning more than 10% of the outstanding capital stock may not exceed five years and their exercise price may not be less than 110% of the fair value of the common stock at date of grant. Options generally vest 40% after six months of employment and thereafter 20% annually on the anniversary date of the grant.

Stock option activity under the 1992 Plan and the 1996 Plan is summarized

as follows:

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,					
	1998		1997		1996	
	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Options outstanding at beginning of year	1,032,500	$3.04	753,500	$2.67	440,000	$2.01
Granted	351,000	$4.52	350,000	$3.57	335,000	$3.47
Exercised	(73,200)	$1.80	(69,500)	$1.71		
Cancelled			(1,500)	$3.94	(21,500)	$1.81
Options outstanding at end of year	1,310,300	$3.50	1,032,500	$3.04	753,500	$2.67
Options exercisable at end of year	786,380	$3.08	604,700	$2.57	475,500	$2.28

</TABLE>

The following table presents information relating to stock options outstanding under the plans as of December 31, 1998:

<TABLE>
<CAPTION>

	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
RANGE OF EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	WEIGHTED AVERAGE REMAINING LIFE IN YEARS	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>	<C>
$1.65 -- $2.6875	479,500	$2.09	6.16	399,500	$2.01
$3.25 -- $4.125	342,000	$3.88	7.82	240,000	$4.00
$4.3125 -- $5.00	482,800	$4.58	9.04	144,480	$4.42
$8.38	6,000	$8.38	9.23	2,400	$8.38
	1,310,300	$3.50	7.67	786,380	$3.08

</TABLE>

As of December 31, 1998, no more options are available for future grant under the 1992 Plan and 487,000 options are available under the 1996 Plan.

In addition to options issued under the plans, in February 1996, the Company granted options to purchase 100,000 shares of common stock at $4.25 as compensation for professional services. Such options, which are exercisable and expire in 2001, are outstanding at December 31, 1998.

The weighted average fair value at date of grant for options granted during 1998, 1997 and 1996 was $3.27, $2.34 and $2.16 per option, respectively. The fair value of options at date of grant was estimated using the Black-Scholes option pricing model utilizing the following assumptions:

<TABLE>
<CAPTION>

	1998	1997	1996

<S>	<C>	<C>	<C>
Risk-free interest rates.....	4.41% to 5.63%	6.38% to 6.55%	6.30% to 6.80%
Expected option life in years.....	10	10	10
Expected stock price volatility.....	49% to 86%	44% to 51%	33% to 53%
Expected dividend yield.....	0%	0%	0%

</TABLE>

Had the Company elected to recognize compensation cost based on the fair value of the options at the date of grant as prescribed by Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation," net loss in 1998, 1997 and 1996 would have been $3,199,000, $3,593,000 and $3,195,000 or $.35, $.46 and $.46 per share, respectively.

NOTE H -- INCOME TAXES

At December 31, 1998, the Company had approximately $16,700,000 of net operating loss carryforwards for federal income tax purposes which expire through 2018.

At December 31, 1998, the Company has a deferred tax asset of approximately $5,900,000 representing the benefits of its net operating loss carryforward and certain expenses not currently deductible. The Company's deferred tax asset has been fully reserved by a valuation allowance since realization of its benefit is uncertain. The difference between the statutory tax rate of 34% and the Company's effective tax rate of 0% is due to the increase in the valuation allowance of $1,000,000 (1998), $1,000,000 (1997) and $1,000,000 (1996). The Company's ability to utilize its net operating loss carryforwards may be subject to an annual limitation in future periods pursuant to Section 382 of the Internal Revenue Code of 1986, as amended.

NOTE I -- COMMITMENTS AND OTHER MATTERS

[1] LEASES:

The Company occupies office and laboratory space under two leases expiring through December 31, 2000. Minimum future annual rental payments are $177,000 in 1999 and $201,000 in 2000.

Rent expense was approximately $142,000, $140,000 and $123,000 for the years ended December 31, 1998, 1997 and 1996, respectively.

[2] EMPLOYMENT AGREEMENTS:

The Company has extended the employment agreements of two officers which provide for annual base salaries of $200,000 and $90,000 (subject to annual increases of not less than 5% per year and bonuses at the discretion of the Board of Directors), for a period of five years and three years, respectively, commencing November 1998.

On December 31, 1998, the Company entered into an employment agreement with its Vice President for Drug Design. In connection with the employment agreement, the employee assigned to the Company certain technology. The agreement is for a period of three years commencing January 4, 1999, the effective date, and shall be extended for successive twelve-month periods unless terminated by either party. The agreement provides for an annual base salary of $100,000 (subject to annual increases of 5% at the beginning of each calendar year, commencing on January 1, 2000). Additionally, the employee will receive 25,000 shares of the Company's common stock in full consideration for the assignment of the technology. The Company agreed to

grant the employee options to purchase 75,000 shares of the Company's common stock at an exercise price not to exceed fair market value on the date of grant. The Company also agreed to grant the employee bonus options to purchase up to 16,000 shares of the Company's common stock exercisable only upon reaching a

certain milestone. The Company further agreed to pay royalties based on net revenues received from the sales of products that incorporate the technology and royalties on net sublicense fees received from sublicensing the technology. The Company also agreed to reimburse the employee for certain expenses and to assume liability for certain payments upon the realization of profit from the technology.

[3] CONSULTING AGREEMENTS:

During 1996, the Company entered into an agreement with a consulting firm whereby the Company has agreed to pay a fee of $3,000 per month, until the agreement is terminated by either party and to grant warrants to purchase 75,000 shares of common stock at $4.25 per share in return for financial advisory services. The warrants will be granted and become exercisable in the event a transaction introduced to the Company by the consulting firm is consummated, at which time the Company will record a noncash charge representing the fair value of the warrants.

In August 1998, the Company entered into an agreement with a consulting firm whereby the Company has agreed to pay a fee of $35,000 in return for financial advisory services. In connection with the agreement, the Company issued five-year warrants to purchase 75,000 shares of common stock. Warrants for 50,000 shares vest on December 31, 1998 of which 37,500 have an exercise price of $7.00 per share and 12,500 have an exercise price of $8.00 per share. The Company determined the fair value of these warrants to be approximately $181,000 which was charged to operations. The remaining 25,000 warrants have an exercise price of $9.00 per share and vest only if a transaction introduced to the Company by the consulting firm is consummated, at which time the Company will record a noncash charge representing the fair value of the warrants.

[4] COLLABORATION AGREEMENTS:

(a) Agreements With Research and Development Institute, Inc. ("RDI"):

During June 1993, the Company entered into a research and license agreement with RDI of Montana State University pursuant to which the Company finances and RDI conducts research and development at Montana State University in the field of taxol producing organisms. In connection with the agreement, RDI has granted the Company an exclusive license and licensing rights to its patents and know-how throughout the world to develop and market products relating to the technology.

The Company has agreed to finance research to be conducted under the agreement and paid RDI an aggregate fixed fee of $250,000 per annum for four years commencing in 1993. In July 1998, the Company agreed to finance research for an additional year for $250,000. In addition, the Company has agreed to pay RDI royalties of up to 6% of net sales of products derived under the agreement with minimum royalty payments as follows: $25,000 in June 1994, $50,000 in June 1995, $75,000 in June 1996 and $100,000 in June 1997 and annually thereafter. The agreement was amended during May 1998 to require the Company to pay a percentage of royalties received with respect to the manufacture, use or sale of the inventions by sublicensees and a percentage of all up-front, milestone, and royalty payments which may be received under the agreement with Bristol-Myers Squibb (see Note D). Under the agreement, the minimum royalties shall be credited against royalties paid in connection with the amendment.

During August 1998, the Company entered into an additional license agreement with RDI whereby RDI has granted the Company an exclusive license and licensing rights to its patents and know-how throughout the world to research, develop and market products developed with or from the pestalotiopsis microspora organism. The Company paid a license fee of $10,000 and agreed to pay sales-based royalties.

(b) Agreements With Pestka Biomedical Laboratories, Inc. ("Pestka"):

In September 1992, the Company formed a corporate joint venture with

Pestka for the purpose of developing, manufacturing and marketing a therapeutic drug for blood related cancers such as leukemia and lymphomas. The agreement provides for the Company to contribute $233,000, which was paid during 1992, and certain technology and for Pestka to grant the joint venture an exclusive, worldwide license to certain patents and proprietary rights. Under a related agreement, Pestka agreed to perform certain research and development, as defined, for the joint venture, for $233,000. The stockholders of Pestka purchased 20,000 shares of the Company's common stock for a price of $1.65 per share. The investment in the joint venture is accounted for on the equity method. As of December 31, 1997, the Company's share of cumulative losses from the venture equaled its investment and accordingly, the investment has no carrying amount in the accompanying balance sheets. The equity in loss of joint venture, included in research and development costs, was $0 for the year ended December 31, 1998, $16,000 for the year ended December 31, 1997 and $23,000 for the year ended December 31, 1996. The venture is presently inactive, and the Company has no further obligation to fund the venture.

(c) Agreements with Washington State University Research Foundation ("WSURF"):

In July 1996, the Company entered into an agreement with WSURF whereby the Company received an exclusive, world-wide license to use and/or sublicense patented technology or prospective patented technology (the "WSURF Technology"). In June 1998, the agreement was amended to cover additional patents. The Company was required to pay WSURF license fees of $7,500 per year commencing on July 1, 1997. The agreement was amended during May 1998 to require the Company to pay a percentage of royalties received with respect to the manufacture, use or sale of the inventions by sublicensees and a percentage of all up-front, milestone and royalty payments which may be received under the agreement with Bristol Myers Squibb (see Note D). In addition, the Company agreed to pay minimum royalties of $50,000 per year payable on July 1, 1999, $75,000 payable on July 1, 2000, and $100,000 payable on July 1, 2001 and annually thereafter. This agreement will remain in effect until the last to expire of the patents licensed under the WSURF Technology, subject to termination by either party. In conjunction with this agreement, the Company granted WSURF warrants to purchase 36,000 shares of common stock at $4.25 per share. An aggregate of 12,000 warrants per annum are exercisable commencing July 1999 and expire July 2002. The Company determined the fair value of these warrants to be approximately $42,000 which was charged to research and development in 1996.

In July 1996, the Company entered into a research agreement with WSURF for research to be conducted on behalf of the Company. In August 1998, the agreement was extended through July 2000 providing for additional funding of $500,000. As of December 31, 1998, the Company has incurred approximately $104,000 of research costs under the agreement.

(d) Agreements with Regents of the University of California:

In February 1996, the Company entered into two license agreements ("Agreements") with the Regents of the University of California, granting to the Company exclusive rights to certain technology and patent rights. Pursuant to the Agreements, the Company paid license fees of $10,000 and $15,000 upon issuance of the patents. In addition, the Company must pay a yearly license maintenance fee of $8,000, increasing by $4,000 per year until it reaches a maximum of $24,000 on both licenses until the

Company is commercially selling a product based on the technology derived from these license agreements, at which time a royalty based on net sales will be due.

In August 1998, the Company entered into an additional license agreement with the Regents of the University of California, granting to the Company exclusive rights to certain technology and patent rights. Pursuant to the agreement, the Company paid license fees of $20,000 and has agreed

to pay $25,000 upon issuance of a patent. In addition, the Company must pay a yearly license maintenance fee of $2,000, increasing by $2,000 per year until it reaches a maximum of $12,000 until the Company is commercially selling a product based on the technology derived from these license agreements, at which time a royalty based on net sales will be due.

[5] RELATED PARTY TRANSACTION:

Effective December 1996, the Company entered into a one-year agreement, which was extended in January 1998 for an additional year, with a stockholder of the Company, whereby the Company will receive financial and investment banking services for a consulting fee of $5,000 per month plus commissions, as defined. The Company paid $60,000 during each of 1997 and 1998 under this agreement.

In addition, the stockholder acted as placement agent for the Company's 1998 private placement and, in consideration for its services as such, received a sales commission equal to 10% of the $5,633,675 gross proceeds, or $563,368, plus approximately $229,000 as an expense allowance together with other costs. The stockholder also received a unit purchase option, exercisable for a five-year period commencing April 2, 1998, to purchase 134,199 shares of Common Stock at prices ranging from $8.18 to $9.46 and Class E Warrants to purchase 67,101 shares of Common Stock exercisable at prices ranging from $9.82 to $11.35.

NOTE J -- SUBSEQUENT EVENT

During January 1999, the Board of Directors declared a 10% dividend on Series A preferred stock.

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CYTOCLONAL PHARMACEUTICS INC.

CONSISTING OF

6,523,073 SHARES OF COMMON STOCK

AND 2,006,073 REDEEMABLE CLASS D WARRANTS

P R O S P E C T U S

_____ , 1999

No dealer, sales representative or any other person has been authorized to give any information or to make any representations in connection with this Offering other than those contained in this Prospectus and, if given or made, such other information and representations must not be relied upon as having been authorized by the Company. 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 or that the information contained herein is correct as of any time subsequent to the date hereof. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the registered securities to which it relates. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful.

TABLE OF CONTENTS

<TABLE>
<CAPTION>

</TABLE>

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[ALTERNATE LANGUAGE FOR MARKET MAKING PROSPECTUS]

SUBJECT TO COMPLETION

CYTOCLONAL PHARMACEUTICS INC.

SHARES OF COMMON STOCK AND
REDEEMABLE COMMON STOCK PURCHASE WARRANTS

This Prospectus will be used by Janssen-Meyers Associates, L.P. ("JMA") in connection with offers and sales in market making transactions in the common stock, par value $.01 per share ("Common Stock"), and Redeemable Common Stock Purchase Warrants ("Warrants") of Cytoclonal Pharmaceutics Inc. (the "Company"). JMA may act as a principal or agent in such transactions. The Common Stock and Warrants may be offered in negotiated transactions or otherwise. Sales will be made at prices related to prevailing market prices at the time of sale.

SEE "RISK FACTORS" BEGINNING ON PAGE 7 OF THIS PROSPECTUS AND "DILUTION."

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is _____ __, 1999.

[ALTERNATE LANGUAGE FOR MARKET MAKING PROSPECTUS]

PLAN OF DISTRIBUTION

All offers and sales of Common Stock and Redeemable Common Stock Purchase Warrants of the Company pursuant to this Prospectus will be for the account of Janssen-Meyers Associates, L.P. ("JMA") in connection with market making transactions. The stockholders, officers and directors of the corporate general partner of JMA beneficially own in the aggregate of 47.5% of the outstanding shares of Common Stock (which represents approximately 44.9% of the voting securities of the Company) as of April 5, 1999. JMA may act as a principal or agent in such transactions. The Common Stock and Redeemable Common Stock Purchase Warrants may be offered in negotiated transactions or otherwise. Sales will be made at prices related to prevailing market prices at the time of sale.

[ALTERNATE LANGUAGE FOR MARKET MAKING PROSPECTUS]

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CYTOCLONAL PHARMACEUTICS INC.

SHARES OF COMMON STOCK

AND

REDEEMABLE STOCK PURCHASE WARRANTS

P R O S P E C T U S

JANSSEN-MEYERS ASSOCIATES, L.P.

_____ ___, 1999

No dealer, sales representative or any other person has been authorized to give any information or to make any representations in connection with this Offering other than those contained in this Prospectus and, if given or made, such other information and representations must not be relied upon as having been authorized by the Company or Janssen-Meyers Associates, L.P. 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 or that the information contained herein is correct as of any time subsequent to the date hereof. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the registered securities to which it relates. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful.

TABLE OF CONTENTS

<TABLE>
<CAPTION>

</TABLE>

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 24. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Certificate of Incorporation and By-Laws of the Registrant provides that the Company shall indemnify any person to the full extent permitted by the Delaware General Corporation Law (the "GCL"). Section 145 of the GCL, relating to indemnification, is hereby incorporated herein by reference.

Insofar as indemnification for liabilities under the Securities Act may be permitted to Directors, officers or controlling persons of the Company pursuant to the Company's By-Laws and the Delaware General Corporation Law, 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 Securities Act and is therefore unenforceable.

The Company's Certificate of Incorporation includes certain provisions permitted pursuant to Delaware law whereby officers and Directors of the Company are to be indemnified against certain liabilities. The Company's Restated Certificate of Incorporation also limits, to the fullest extent permitted by Delaware law, a director's liability for monetary damages for breach of fiduciary duty, including gross negligence, except liability for (i) breach of the director's duty of loyalty, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law, (iii) the unlawful payment of a dividend or unlawful stock purchase or

redemption and (iv) any transaction from which the director derives an improper personal benefit. Delaware law does not eliminate a director's duty of care and this provision has no effect on the availability of equitable remedies such as injunction or rescission based upon a director's breach of the duty of care. In addition, the Company has obtained an insurance policy providing coverage for certain liabilities of its officers and Directors.

In accordance with Section 102(a)(7) of the GCL, the Certificate of Incorporation of the Registrant eliminates the personal liability of directors to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director with certain limited exceptions set forth in Section 102(a)(7).

ITEM 25. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The estimated expenses payable by the Registrant in connection with the issuance and distribution of the securities being registered are as follows:

<TABLE>
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	Amount
<S>	<C>
Printing Expenses.....	$ 10,000
Accounting Fees and Expenses.....	12,500
Legal Fees and Expenses.....	60,000
Miscellaneous Expenses.....	2,500
Total.....	$ 85,000

</TABLE>

ITEM 26. RECENT SALES OF UNREGISTERED SECURITIES

In the three years preceding the filing of this Registration Statement, the Company has issued the following unregistered securities.

In July 1996, the Company issued WSURF a six year warrant in connection with the execution of the Company's license agreement with WSURF. Such warrant entitles WSURF to acquire an aggregate of 36,000 shares of the Company's Common Stock at an exercise price of $4.25 per share. One third of the warrants may be exercised after each of July 7, 1999, July 7, 2000 and July 2, 2001. The warrant was issued pursuant to the exemption afforded by Section 4(2) promulgated under the Securities Act based on the fact that the issuance was to a single entity not involving a public offering.

In January 1997, the Company issued 122,788 shares of Series A Preferred Stock as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1996 to the holders of such preferred stock. Such issuance was pursuant to Section 3(a)(9) promulgated under the Securities Act based on the fact that it involved an exchange by the issuer exclusively with its existing security-holders and no commission or other remuneration was paid or given directly or indirectly for soliciting such exchange.

In February and September 1997, the Company granted options to purchase 10,000 and 40,000 shares of Common Stock at exercise prices of $4.38 and $4.31 per share, respectively, as compensation for professional services. The options were granted pursuant to the exemption afforded by Section 4(2) promulgated under the Securities Act based on the fact that the issuance was to a single entity not involving a public offering.

In January and March 1998, the Company issued an aggregate of 94,680 shares of Series A Preferred Stock as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1997 to the holders of such preferred stock. Such issuance was pursuant to Section 3(a)(9) promulgated under the Securities Act based on the fact that it involved an exchange by the issuer exclusively with its existing security-holders and no commission or other remuneration was paid or given directly or indirectly for soliciting such exchange.

In April 1998, the Company completed a private placement of 671,026 shares of Common Stock and 335,540 Common Stock Purchase Class E Warrants to purchase an equal amount of shares of Common Stock pursuant to Section 4(2) and the provisions of Regulation D promulgated under the Securities Act. In connection with such private placement, the Company issued to an option to the placement agent to purchase 134,207 shares of Common Stock and warrants to purchase 67,108 shares of Common Stock pursuant to Section 4(2) and the provisions of Regulation D promulgated under the Securities Act.

In January 1999, the Company granted 25,000 shares of Common Stock pursuant to a three-year employment agreement between the Company and its Vice President of Drug Design in consideration for such individual's assignment of technology to the Company. The shares of Common Stock were granted pursuant to the exemption afforded by Section 4(2) promulgated under the Securities Act based on the fact that the issuance was to a single individual non involving a public offering.

On October 8, 1998, the Company granted options under the Company's 1996 Stock Option Plan, as amended, to purchase 265,000 shares of Common Stock at an exercise price equal to $4.75 per share, the fair market value of the Company's Common Stock on such date, to certain of its executive officers, directors and employees and counsel in consideration for professional services rendered The Company granted such options pursuant to the exemption afforded by Section 4(2) promulgated under the Securities Act based on the fact that the grant didn't not involve a public offering.

In January 1999, the Company issued 74,648 shares of Series A Preferred Stock as full payment of the dividend due on the Series A Preferred Stock for the year ended December 31, 1998 to the holders of such preferred stock. Such issuance was pursuant to Section 3(a)(9) promulgated under the Securities Act based on the fact that it involved an exchange by the issuer exclusively with its existing security-holders and no commission or other remuneration was paid or given directly or soliciting such exchange.

ITEM 27. EXHIBITS

3.1 Certificate of Incorporation, as amended (1)
3.2 By-laws (1)
4.1 Specimen certificates representing Class C Warrants, Class D Warrants and Common Stock (1)
4.2 Form of Warrant Agreement with warrant certificates between the Company, Janssen/Meyers Associates, L.P. and American Stock Transfer and Trust Company (1)
4.3 Form of Unit Purchase Option in connection with the Company's Initial Public Offering (1)
5.1 Opinion of Morrison Cohen Singer & Weinstein regarding legality of securities offered

10.1 Form of Consulting Agreement between the Company and Janssen-Meyers Associates, L.P. (1)
10.2 Employment Agreement dated March 1, 1992 between the Company and Arthur P. Bollon, Ph.D. (1)
10.3 Employment Agreement dated March 1, 1992 between the Company and Bruce Meyers, as amended (1)
10.4 Employment Agreement effective November 7, 1995 between the Company and Daniel Shusterman (1)
10.5 1992 Stock Option Agreement (1)
10.6 Form of Stock Option Agreement (1)
10.7 Lease Agreement dated September 1, 1993 between the Company and Mutual Benefit Life Insurance Company In Rehabilitation (l)
10.8 Lease Agreement dated October 1, 1991 between the Company and J.K. and Susie Wadley Research Institute and Blood Bank, as amended (l)
10.9 Purchase Agreement dated October 10, 1991 between the Company and Wadley Technologies, Inc. ("Wadley")(1)
10.10 Security Agreement dated October 10, 1991 between the Company and Wadley(l)
10.11 License Agreement dated March 15, 1989 between the Company and Phillips Petroleum Company, as amended(l)
10.12 License Agreement dated June 10, 1993 between the Company and Research & Development Institute, Inc. ("RDI"), as amended, relating to the Paclitaxel Fermentation Production System(l)
10.13 Research and Development Agreement effective June 10, 1993 between the Company and RDI, as amended(l)
10.14 License Agreement dated February 22, 1995 between the Company and RDI, as amended, relating to FTS-2(l)
10.15 Research, Development and License Agreement dated March 26, 1992 between the Company and Enzon, Inc. ("Enzon"), as amended(l)
10.16 Research, Development and License Agreement dated July 13, 1992 between the Company and Enzon relating to the Company's tumor necrosis factor technology(l)
10.17 Agreement effective June 30, 1992 between the Company and University of Texas at Dallas ("UTD"), as amended(l)
10.18 Research Agreement effective April 8, 1994 between the Company and Sloan-Kettering Institute for Cancer Research(l)
10.19 Joint Venture Agreement dated September 17, 1992 between the Company and Pestka Biomedical laboratories, Inc. ("Pestka")(1)
10.20 Stock Purchase Agreement dated September 17, 1992 between the Company and Pestka(l)
10.21 License Agreement dated September 17, 1992 between Cytomune, Inc. and Pestka(l)
10.22 Research and Development Agreement dated September 17, 1992 between Cytomune, Inc. and Pestka(l)
10.23 Marketing Agreement dated as of November 1, 1994 between Helm AG and the Company(l)
10.24 Extension Agreement with RDI dated June 5, 1995(l)
10.25 Third Amendment to Lease Agreement dated April 30, 1995(l)
10.26 Form of Subordinated Note Extension(l)
10.27 Form of Note Extension(l)
10.28 September 25, 1995 RDI Extension(l)
10.29 October 25, 1995 RDI Extension (1)
10.30 Amendment to License Agreement dated June 10, 1993, as amended, and Research and Development Agreement effective June 10, 1993, as amended, both agreements between the Company and RDI (2)
10.31 License Agreement No. W960206 effective February 27, 1996 between the Company and The Regents of the University of California(2)
10.32 License Agreement No. W960207 effective February 27, 1996 between the Company and The Regents of the University of California(2)
10.33 License Agreement with the Washington State University, dated July 2, 1996(3)*
10.34 Amendment to Agreement, effective June 30, 1992, as amended, between the Company and the University of Texas at Dallas(3)

10.35 1996 Stock Option Plan and Amendment No. 1 thereto (7)
10.36 Patent License Agreement, dated August 4, 1998, between The Regents of

the University of California and the Company for Peptide Anti-estrogen for Breast Cancer Therapy (5)*

10.37 Master License Agreement, dated as of June 12, 1998, between the Company and Bristol-Myers Squibb Company (6)*

10.38 Sublicense Agreement, dated May 27, 1998, between the Company and Bristol-Myers Squibb under The Research & Development Institute, Inc. License Agreement, as amended, dated June 10, 1998 (6)*

10.39 Sublicense Agreement, dated May 19, 1998, between the Company and Bristol-Myers Squibb Company under the Washington State University Research Foundation License Agreement, dated June 8, 1996 (6)*

10.40 Amended and Restated License Agreement, dated June 3, 1998, between the Washington State University Research Foundation and the Company (6)*

10.41 Amendment, dated May 27, 1998, to the License Agreement, dated June 10, 1993, between The Research and Development Institute, Inc. and the Company (6)*

21 List of Subsidiaries - None

23.1 Consent of Morrison Cohen Singer & Weinstein, LLP (included in Exhibit 5.1 hereto)

23.2 Consent of Gardere & Wynne, L.P.

23.3 Consent of Independent Auditors

24.1 Power of Attorney (1)

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* Confidential portions omitted and filed separately with the U.S. Securities Commission pursuant to Rule 24b-2 promulgated under the Securities Exchange Act of 1934, as amended.

(1) Previously filed as an exhibit to the Company's Registration Statement on Form SB-2 (File No. 33-91802) and are incorporated by reference herein.

(2) Previously filed as an exhibit to the Company's Annual Report on Form 10-KSB (File No. 000-26078) for the year ended December 31, 1995 and incorporated by reference herein.

(3) Previously filed as an exhibit to the Company's Post-Effective Amendment No. 1 to Form SB-2 (File No. 33-91802) and are incorporated by reference herein.

(4) Previously filed as an exhibit to the Company's Registration Statement on Form SB-2 (File No. 333-13409) and is incorporated by reference herein.

(5) Previously filed as an exhibit to the Post-Effective Amendment to the Company's Registration Statement on Form SB-2 on Form S-3 (File No. 333-13409) and is incorporated by reference herein.

(6) Previously filed as an exhibit to the Company's Current Report on Form 8-K (File No. 000-26078) and is incorporated by reference herein.

(7) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (File No. 000-26078) for the year ended December 31, 1998 and is incorporated by reference herein.

ITEM 28. UNDERTAKINGS

UNDERTAKINGS REQUIRED BY REGULATION S-B, ITEM 512(A).

The undersigned registrant hereby undertakes to:

(1) File, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement; and

(iii) Include any additional or changed material

information on the plan of distribution.

(2) For determining liability under the Securities Act, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.

(3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

UNDERTAKING REQUIRED BY REGULATION S-B, ITEM 512(E).

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or controlling persons of the registrant pursuant to any arrangement, provision or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

In accordance with the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form SB-2 and authorized this Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form SB-2 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Dallas, State of Texas on April 22, 1999.

CYTOCLONAL PHARMACEUTICS INC.

By: /s/ Arthur P. Bollon

Arthur P. Bollon, Ph.D., Chairman, President and Chief Executive Officer

In accordance with the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form SB-2 has been signed by the following persons in the capacities and on the dates indicated.

<TABLE>
<CAPTION>

Signature	Title	Date
<S>	<C>	<C>
/s/ Arthur P. Bollon Arthur P. Bollon, Ph.D.	Chairman, President, Chief Executive Officer and Director (principal executive officer)	April 22, 1999
/s/ Daniel Shusterman	Vice President Operations,	April 22, 1999

Daniel Shusterman, J.D.	Treasurer and Chief Financial Officer (principal financial and accounting officer)	
*	Director	
Ira Gelb, M.D.		
*	Director	
Irwin C. Gerson		
*	Director	
Walter M. Lovenberg		

*By: /s/ Arthur P. Bollon April 22, 1999

Arthur P. Bollon, Attorney-in-Fact

EXHIBIT INDEX

MORRISON COHEN SINGER & WEINSTEIN, LLP
750 Lexington Avenue
New York, New York 10022
Telephone: (212) 735-8600
Facsimile: (212) 735-8708

April 21, 1999

Cytoclonal Pharmaceutics Inc.
9000 Harry Hines Boulevard, Suite 330
Dallas, Texas 75235

Re: Post Effective Amendment No. 5 to
Registration Statement on Form SB-2
(File No. 33-91802)

Dear Sirs:

We hereby refer to Post-Effective Amendment No. 5 to the Registration Statement on Form SB-2 (Reg. No. 33-91802) (the "Registration Statement") filed by you, Cytoclonal Pharmaceutics Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended, thereby registering an aggregate amount of (i) 6,523,073 shares of common stock, $.01 par value per share (the "Common Stock"), of the Company and (ii) 2,006,073 Redeemable Class D Warrants (the "Class D Warrants") issued in connection with the Company's initial public offering completed in November 1995 (the "IPO"). The 6,523,073 shares of Common Stock referenced in item (i) above consists of (a) 2,006,073 shares of Common Stock issuable upon the exercise of the Class C Warrants (the "Class C Warrants") at an exercise price of $6.50 until November 2, 2000 (the "Expiration Date") issued in connection with the IPO (the "Class C Warrant Shares"), (b) 2,006,073 shares of Common Stock issuable upon the exercise of the Class D Warrants underlying the Class C Warrants (the "Underlying Class D Warrants") at an exercise price of $8.75 until the Expiration Date (the "Underlying Class D Warrants Shares") and (c) 2,510,927 shares of Common Stock issuable upon the exercise of the Class D Warrants at an exercise price of $8.75 until the Expiration Date (the "Class D Warrant Shares").

We have examined and are familiar with originals, or copies certified or otherwise identified to our satisfaction, of such corporate records of the Company, certificates of officers of the Company and of public officials and such other documents as we have deemed appropriate as a basis for the opinions expressed below.

Based upon the foregoing, we are of the opinion that:

1. The Underlying Class D Warrants and Class D Warrants have been duly and validly authorized and when sold, paid for and issued as contemplated by the Registration Statement, will be duly and validly issued and fully paid and nonassessable.

2. The Class C Warrant Shares, Underlying Class D Warrant Shares and the Class D Warrants Shares have been duly and validly authorized and when sold, paid for, and issued upon exercise of the respective Warrants in accordance with the terms of such Warrants, will be duly and validly issued and fully paid and nonassessable.

We hereby consent to the use of this opinion in the above-mentioned Registration Statement and to the reference to our name under the heading "Legal Matters" in the Prospectus constituting a part of such Registration Statement.

Very truly yours,

/s/ MORRISON COHEN SINGER & WEINSTEIN, LLP

EXHIBIT 23.2

CONSENT OF COUNSEL

The undersigned hereby consents to the use of our name, and the statement with respect to us appearing under the heading "Legal Matters" included in the Post Effective Amendment No. 5 on Form SB-2.

GARDERE & WYNNE, L.P.

/s/ Sanford E. Warren, Jr. Date: April 22, 1999
- ---------- ----
Sanford E. Warren, Jr.

EXHIBIT 23.3

CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to inclusion in this Post-Effective Amendment No. 5 to the Registration Statement on Form SB-2 of our report dated February 6, 1999 on our audits of the financial statements of Cytoclonal Pharmaceutics Inc., a Delaware corporation, as of December 31, 1998 and 1997 and for each of the years in the three-year period ended December 31, 1998. We also consent to the reference of our firm under the captions "Experts" and "Selected Financial Data" in the Prospectus.

/s/ Richard A. Eisner & Company, LLP
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Richard A. Eisner & Company, LLP
New York, New York
April 21, 1999