

SCHEDULE 14A INFORMATION
(Rule 14a-101)

PROXY STATEMENT PURSUANT TO SECTION 14(A) OF
THE SECURITIES EXCHANGE ACT OF 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
 Confidential, for Use of the Commission Only
(as permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to sec.240.14a-11(c) or sec.240.14a-12

Ligand Pharmaceuticals Incorporated

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

- (1) Title of each class of securities to which transaction applies:
(2) Aggregate number of securities to which transaction applies:
(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):
(4) Proposed maximum aggregate value of transaction:
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Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount Previously Paid:
(2) Form, Schedule or Registration Statement No.:
(3) Filing Party:
(4) Date Filed:

LIGAND PHARMACEUTICALS INCORPORATED

April 16, 1999

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of the Stockholders of Ligand Pharmaceuticals Incorporated, to be held on Thursday, May 20, 1999 at 9:00 a.m. at the La Jolla Marriott located at 4240 La Jolla Village

Drive, La Jolla, California.

Details of the business to be conducted at the Annual Meeting are given in the attached Notice of Annual Meeting and Proxy Statement.

If you do not plan to attend the Annual Meeting, please sign, date and return the enclosed proxy promptly in the accompanying reply envelope. If you decide to attend the Annual Meeting and wish to change your proxy vote, you may do so automatically by voting in person at the Annual Meeting.

We look forward to seeing you at the Annual Meeting.

San Diego, California David E. Robinson
Chairman, President and Chief Executive Officer

YOUR VOTE IS IMPORTANT

In order to assure your representation at the meeting, you are requested to complete, sign and date the enclosed proxy as promptly as possible and return it in the enclosed envelope. You do not need to add postage if mailed in the United States.

LIGAND PHARMACEUTICALS INCORPORATED
10275 SCIENCE CENTER DRIVE
SAN DIEGO, CALIFORNIA 92121

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD May 20, 1999

Dear Stockholder:

The Annual Meeting of Stockholders of Ligand Pharmaceuticals Incorporated (the "Company") will be held at the La Jolla Marriott located at 4240 La Jolla Village Drive, La Jolla, California on Thursday, May 20, 1999 at 9:00 a.m., Pacific Standard Time, for the following purposes:

1. To elect a Board of Directors for the following year. Management has nominated the following persons for election at the meeting: David E. Robinson, Henry F. Blissenbach, Alexander D. Cross, John Groom, Irving S. Johnson, Carl C. Peck and Michael A. Rocca.
2. To approve an amendment to the Company's 1992 Stock Option/Stock Issuance Plan, to increase the number of shares of the Company's common stock authorized for issuance from 8,088,457 to 9,073,457 shares.
3. To approve an amendment to the Company's 1992 Employee Stock Purchase Plan, to increase the number of shares of the Company's common stock available for purchase from 260,000 to 355,000 shares.
4. To ratify the selection of Ernst & Young LLP as independent accountants for the fiscal year ending December 31, 1999.
5. To transact any other business as may properly come before the meeting or any adjournment thereof.

Stockholders of record at the close of business on April 1, 1999 will be entitled to vote at the Annual Meeting. The stock transfer books of the Company will remain open between the record date and the date of the meeting. A list of stockholders entitled to vote at the Annual Meeting will be available for inspection at the offices of the Company. Whether or not you plan to attend the Annual Meeting in person, please sign, date and return the enclosed proxy in the envelope provided. If you attend the Annual Meeting and vote by ballot, your proxy will be revoked automatically and only your vote at the Annual Meeting

will be counted. The prompt return of your proxy will assist us in preparing for the Annual Meeting.

By Order of the Board of Directors

WILLIAM L. RESPES

Secretary

San Diego, California
April 16, 1999

LIGAND PHARMACEUTICALS INCORPORATED
10275 Science Center Drive
San Diego, California 92121

PROXY STATEMENT

For the Annual Meeting of Stockholders
To Be Held
May 20, 1999

GENERAL

The enclosed proxy is solicited on behalf of the Board of Directors of Ligand Pharmaceuticals Incorporated, a Delaware corporation (the "Company"), for use at the annual meeting of stockholders to be held on May 20, 1999. The annual meeting will be held at 9:00 a.m. at the La Jolla Marriott located at 4240 La Jolla Village Drive, La Jolla, California. Stockholders of record on April 1, 1999 will be entitled to notice of and to vote at the Annual Meeting.

This proxy statement and accompanying proxy were first mailed to stockholders on or about April 16, 1999.

PURPOSE OF THE MEETING

The specific proposals to be considered and acted upon at the annual meeting are summarized in the accompanying notice and are described in more detail in this proxy statement.

VOTING

On April 1, 1999, the record date for determination of stockholders entitled to vote at the annual meeting, there were approximately 46,621,520 shares of common stock, par value \$.001 (the "Common Stock"), outstanding. Each stockholder is entitled to one vote for each share of common stock held by such stockholder on April 1, 1999. Stockholders may not cumulate votes in the election of directors.

All votes will be tabulated by the inspector of election appointed for the meeting who will separately tabulate affirmative and negative votes, abstentions and broker non-votes. Abstentions and broker non-votes will be counted for purposes of determining whether a quorum is present at the annual meeting. With regard to the election of directors, votes may be cast in favor of, or withheld from, each nominee. However, the directors will be elected by plurality vote, and votes that are withheld will be excluded entirely from the vote and will have no effect. All other matters to be acted upon by the stockholders at the annual meeting will require the approval of the holders of a majority of the outstanding common stock present in person or represented by proxy and entitled to vote at the annual meeting. With respect to such matters, abstentions will have the effect of negative votes, and broker non-votes will not be counted for purposes of determining whether any of those proposals have been approved.

REVOCABILITY OF PROXIES

Any person giving a proxy has the power to revoke it at any time before its exercise. It may be revoked by filing with the Secretary of the

Company at the Company's principal executive office, 10275 Science Center Drive, San Diego, California 92121, a notice of revocation or another signed proxy with a later date. You may also revoke your proxy by attending the annual meeting and voting in person.

SOLICITATION

The Company will bear the entire cost of solicitation, including the preparation, assembly, printing and mailing of this proxy statement, the proxy and any additional solicitation material furnished to stockholders. Copies of solicitation material will be furnished to brokerage houses, fiduciaries and custodians holding shares in their names that are beneficially owned by others so that they may forward this solicitation material to such beneficial owners. In addition, the Company may reimburse such persons for their costs of forwarding the solicitation materials to such beneficial owners. The original solicitation of proxies by mail may be supplemented by solicitation by telephone, telegram or other means by directors, officers, employees or agents of the Company. To assist in the solicitation process, the Company has retained ChaseMellon Shareholder services. The fee for such services will be approximately \$5,000 plus reasonable expenses incurred to distribute solicitation materials. No additional compensation will be paid to directors, officers or employees of the Company for any such services. Except as described above, the Company does not presently intend to solicit proxies other than by mail.

PROPOSAL NO. 1
ELECTION OF DIRECTORS

The persons named below are nominees for director to serve until the next annual meeting of stockholders and until their successors have been elected and qualified. The Company's bylaws provide that the authorized number of directors shall be determined by resolution of the Board of Directors or by the stockholders at an annual meeting and shall be within the range of seven to 11 individuals. The authorized number of directors is currently eight. The Board of Directors has selected seven nominees, all of whom except Mr. Rocca are currently directors of the Company. Each person nominated for election has agreed to serve if elected, and management has no reason to believe that any nominee will be unavailable to serve. Unless otherwise instructed, the proxyholders will vote the proxies received by them for the nominees named below. The proxies received by the proxyholders cannot be voted for more than seven directors and, unless otherwise instructed, the proxyholders will vote such proxies for the nominees named below. The seven candidates receiving the highest number of affirmative votes of the shares entitled to vote at the annual meeting will be elected directors of the Company.

NOMINEES

The following table sets forth information regarding the nominees.

<TABLE>
<CAPTION>

Name	Positions and Offices Held	Year First Elected	Director	Age
David E. Robinson	Chairman, President, Chief Executive Officer and Director	1991		50
Henry F. Blissenbach (A)	Director	1995		56
Alexander D. Cross, Ph.D. (B)	Director	1991		67
John Groom (A)(B)	Director	1995		60
Irving S. Johnson, Ph.D.	Director	1989		73
Carl C. Peck, M.D.	Director	1997		57
Michael A. Rocca	Nominee	N/A		54

</TABLE>

(A) Member of Compensation Committee.

(B) Member of Audit Committee.

BUSINESS EXPERIENCE OF DIRECTORS

DAVID E. ROBINSON has served as President, Chief Executive Officer and a Director since 1991. Since May 1996, Mr. Robinson has also served as Chairman of the Company. Prior to joining Company, he was Chief Operating Officer at Erbamont, a pharmaceutical company. Prior to that, Mr. Robinson was President of Adria Laboratories, Erbamont's North American subsidiary. He also was employed in various executive positions for more than 10 years by Abbott Laboratories, most recently as Regional Director of Abbott Europe. Mr. Robinson received his B.A. in political science and history from MacQuaire University and his M.B.A. from the University of South Wales, Australia. Mr. Robinson is a Director of the Pharmaceutical Research and Manufacturers of America, the Cancer Center Foundation of the University of California at San Diego and the California Healthcare Institute, as well as Neurocrine Biosciences, Inc., and Collateral Therapeutics, Inc., public biotechnology companies, and several private health care companies.

HENRY F. BLISSENBACH has served as a Director since May 1995 and currently serves as a member of the Company's Compensation Committee. Dr. Blissenbach is currently President and Chief Operating Officer of Chronimed, Inc., a public medical product mail-order company ("Chronimed"). Previously, Dr. Blissenbach served

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as President of Diversified Pharmaceutical Services, a subsidiary of SmithKline Beecham Corp. ("SmithKline Beecham"), from August 1986 until March 1997. He earned his Doctor of Pharmacy (Pharm.D.) degree at the University of Minnesota, College of Pharmacy. He has held an academic appointment in the College of Pharmacy, University of Minnesota, since 1981. He has vast experience in managed health care, and has served in numerous advisory capacities with pharmaceutical manufacturers and managed care entities over the past many years. Dr. Blissenbach currently serves on the Board of Directors of Chronimed.

ALEXANDER D. CROSS, Ph.D. has served as a Director of Company since March 1991 and currently serves as a member of the Company's Audit Committee. Dr. Cross has been an independent consultant in the fields of pharmaceuticals and biotechnology since January 1986. Dr. Cross served as President and Chief Executive Officer of Zoecon Corporation, a biotechnology company, from April 1983 to December 1985, and Executive Vice President and Chief Operating Officer from 1979 to 1983. Dr. Cross currently serves as Chairman of the Board of Directors and Chief Executive Officer for Cytopharm, Inc., a private company. He is a member of the Board of Directors of Myelos Neurosciences, and Dermal Systems International Inc., private companies.

JOHN GROOM has served as a Director since May 1995 and currently serves as a member of the Company's Audit and Compensation Committees. Mr. Groom has served as President and Chief Operating Officer of Elan Corporation, plc ("Elan") since January 1997, having previously served from July 1996 to January 1997 as Chief Operating Officer and a director on the Board of Directors of Elan. Previously, he was President, Chief Executive Officer, and a director on the Board of Directors of Athena Neurosciences, Inc. from 1987 until its acquisition by Elan in July 1996. From 1960 until 1985, Mr. Groom was employed by Smith Kline & French Laboratories ("SK&F"), the pharmaceutical division of the then - SmithKline Beechman. He held a number of positions at SK&F including President of SK&F International, Vice President, Europe, and Managing Director, United Kingdom. Mr. Groom has also served as Chairman of the International Section of the Pharmaceutical Manufacturers Association. Mr. Groom also serves as a director on the Board of Directors of IDEC Pharmaceuticals Corporation, a public biotechnology company, and the California Healthcare Institute and is a public trustee on the Board of Trustees of the American Academy of Neurology Education and Research Foundation. Mr. Groom is Fellow of the Association of Certified Accountants (UK).

IRVING S. JOHNSON, Ph.D. has served as a Director since March 1989. Dr. Johnson has been an independent consultant in biomedical research since 1989. From 1953 until his retirement in November 1988, Dr. Johnson held various positions with Eli Lilly & Company, a pharmaceutical company, including Vice President of Research from 1973 until 1988. He has published almost 90 scientific articles, contributed to over 30 books and has served on numerous editorial boards, society committees and advisory committees of the National Academy of Sciences and the National Institutes of Health including the Recombinant DNA Advisory Committee, and was the recipient of the First Annual Congressional Award in Science and Technology. Dr. Johnson is a member of the Board of Directors of Agouron Pharmaceuticals, Inc. and Allelix Biopharmaceuticals, both public pharmaceutical companies. He currently serves on the Scientific Advisory Boards of both the Company and Elan.

CARL C. PECK, M.D. has served as a Director since May 1997. Dr. Peck has been Professor of Pharmacology and Medicine and Director of the Center for Drug Development Science at Georgetown University Medical Center since September, 1994. Dr. Peck was Boerhaave Professor of Clinical Drug Research at Leiden University from November 1993 to July 1995. From October 1987 to November 1993, Dr. Peck was Director, Center for Drug Evaluation and Research of the FDA. He held many academic positions prior to October 1987, including Professor of Medicine and Pharmacology, Uniformed Services University, from 1982 to October 1987. He is author of more than 100 original research papers, chapters and books with regard to his area of expertise.

MICHAEL A. ROCCA has been nominated to serve on the Board of Directors. Mr. Rocca is currently Senior Vice President and Chief Financial Officer of Mallinckrodt, Inc., a global manufacturer and marketer of specialty medical products, a position he has held since 1994. From 1966 until 1994, Mr. Rocca was employed by Honeywell, Inc., a control technology company. He held a number of positions at Honeywell which included Vice President and Treasurer, Vice President of Finance, Europe, and Vice President and Controller International. Mr. Rocca is a graduate of the University of Iowa and has a strong background in finance and accounting.

BOARD MEETINGS AND COMMITTEES

The Board of Directors of the Company held a total of 6 meetings and acted by written consent one time during the fiscal year ended December 31, 1998. With the exception of Ms. Fash, during such year, each director attended at least 75% of the aggregate number of meetings of the Board of Directors and of the Board committees on which such director served. Ms. Fash attended 70% of such total of meetings and was advised of all activity associated with meetings she did not attend.

The Company has an Audit Committee and a Compensation Committee of the Board of Directors. The Company does not have a Nominating Committee or a committee that performs the functions of a Nominating Committee.

The Audit Committee was established in March 1992 and is primarily responsible for reviewing the financial reporting process and the Company's internal accounting controls, and approving the services performed by, and the independence of, the Company's auditors. This Committee currently consists of Dr. Cross and Mr. Groom. The Audit Committee held two meetings during 1998.

The Compensation Committee was established in March 1992 and reviews and approves the Company's compensation policies. This committee currently consists of Messrs. Blissenbach and Groom, and Ms. Fash. Ms. Fash is not standing for re-election. The Compensation Committee held four meetings and acted by unanimous written consent two times during 1998.

DIRECTOR COMPENSATION

Certain non-employee Board members are paid fees for their Board service and are reimbursed for expenses incurred in connection with such service. Drs. Cross and Peck, and Mr. Blissenbach each receive a fee of \$2,000 for each Board meeting attended, \$750 for each committee meeting attended on non-Board meeting dates and \$500 for each Board meeting in which he participated

by telephone. The Company also reimburses Drs. Cross and Peck, and Mr. Blissenbach for all reasonable and necessary travel and other incidental expenses in connection with the performance of his Board duties. Under a commitment with Dr. Johnson, the Company pays him a fee of \$2,000 for each Board meeting attended, \$500 for each Board meeting in which he participates by telephone and \$1,000 for each day of service in excess of four days which he renders as a member of the Scientific Advisory Board. The Company also reimburses Dr. Johnson for all reasonable and necessary travel and other incidental expense incurred in connection with such duties.

In addition, non-employee Board members are also eligible to participate in the Automatic Option Grant Program in effect under the 1992 Stock Option/Stock Issuance Plan. Each of the following individuals re-elected as a non-employee Board member at the 1998 Annual Meeting, received an option to purchase 10,000 shares of common stock with an exercise price of \$14.50 per share: Messrs. Blissenbach and Groom and Drs. Cross and Johnson and Peck. For further information concerning such automatic option grants to directors, please see "Proposal 2-Amendment of the 1992 Stock Option/Stock Issuance Plan--Automatic Option Grant Program" below.

RECOMMENDATION OF THE BOARD OF DIRECTORS

The Board of Directors unanimously recommends a vote FOR the nominees listed herein.

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PROPOSAL NO. 2 AMENDMENT OF THE 1992 STOCK OPTION/STOCK ISSUANCE PLAN

The 1992 Stock Option/Stock Issuance Plan was originally adopted by the Board and was approved by the stockholders in 1992. The amendments to the 1992 Plan which are the subject of this Proposal were approved by the Board in February and March 1999, subject to stockholder approval at the annual meeting.

The proposed share increase will assure that a sufficient reserve of common stock is available under the 1992 Plan to attract and retain the services of key individuals essential to the Company's long-term growth and success.

The following is a summary of the principal features of the 1992 Plan, as amended. The summary, however, does not purport to be a complete description of all the provisions of the 1992 Plan. Copies of the actual plan document may be obtained by any stockholder upon written request to the Corporate Secretary at the Company's principal executive offices in San Diego, California.

PLAN STRUCTURE

The 1992 Plan contains four separate equity programs:

- o the Discretionary Option Grant Program,
- o the Automatic Option Grant Program,
- o the Stock Issuance Program, and
- o the Director Fee Option Grant Program.

The principal features of these programs are described below. The 1992 Plan is administered by the Compensation Committee of the Board. This committee (the "Plan Administrator") has complete discretion (subject to the provisions of the 1992 Plan) to authorize option grants and direct stock issuances under the 1992 Plan. However, the Plan Administrator will not exercise any administrative discretion under the Automatic Option Grant or Director Fee Option Grant Program for the non-employee Board members. All grants under those programs will be made in strict compliance with the express provisions of each such program.

ISSUABLE SHARES

A total of 9,073,457 shares of Common Stock has been reserved for issuance over the 10 year term of the 1992 Plan, assuming stockholder approval of the 985,000-share increase which forms part of this Proposal. As of March 1, 1999, options for 5,183,728 shares of Common Stock were outstanding under the 1992 Plan, 998,063 shares remained available for future option grant or direct issuance (assuming stockholder approval of the 985,000-share increase which forms part of this Proposal), and 2,887,551 shares have been issued under the 1992 Plan. Without such increase, only 13,063 shares would be available for future grant.

In no event may any one participant in the 1992 Plan receive options, separately exercisable stock appreciation rights and direct stock issuances for more than 1,000,000 shares in the aggregate over the term of the 1992 Plan.

Should an option expire or terminate for any reason prior to exercise in full, the shares subject to the portion of the option not so exercised will be available for subsequent option grants or stock issuances under the 1992 Plan. In addition, unvested shares issued under the 1992 Plan and subsequently repurchased by the Company, at the original exercise price or issue price paid per share, will be added back to the number of shares of common stock reserved for issuance under the 1992 Plan. Accordingly, such repurchased shares will be available for reissuance through one or more subsequent option grants or direct stock issuances under the 1992 Plan. However,

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shares subject to any option surrendered or canceled in accordance with the stock appreciation right provisions of the 1992 Plan will reduce on a share-for-share basis the number of shares of Common Stock available for subsequent grants.

Should any change be made to the common stock issuable under the 1992 Plan by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding common stock as a class without the Company's receipt of consideration, then appropriate adjustments will be made to

- o the maximum number and/or class of securities issuable under the 1992 Plan;
- o the number and/or class of securities for which any one person may be granted options, separately exercisable stock appreciation rights and direct stock issuances over the remaining term of the 1992 Plan;
- o the number and/or class of securities for which grants are to be made under the Automatic Option Grant Program to new or continuing non-employee Board members; and
- o the number and/or class of securities and price per share in effect under each outstanding option.

Such adjustments to the outstanding options will be effected in a manner which will preclude the enlargement or dilution of rights and benefits under those options.

ELIGIBILITY

Officers and other key employees of the Company and its parent or subsidiaries (whether now existing or subsequently established), non-employee members of the Board and consultants and independent contractors of the Company and its parent and subsidiaries are eligible to participate in the 1992 Plan.

As of March 1, 1999, approximately 428 employees (including 10 executive officers) and six non-employee Board members were eligible to participate in the Discretionary Option Grant and Stock Issuance Programs. The six non-employee Board members were also eligible to participate in the Automatic Option Grant and Director Fee Option Grant Programs.

VALUATION

The fair market value per share of common stock on any relevant date under the 1992 Plan will be deemed to be equal to the closing selling price per share on that date on the Nasdaq National Market. If there is no reported selling price for such date, then fair market value per share will be the closing selling price on the next preceding date for which such quotation exists. On March 1, 1999, the closing selling price per share was \$9.625.

DISCRETIONARY GRANT PROGRAM

Option Price and Term. Options may be granted under the Discretionary Option Grant program at an exercise price per share not less than 85% of the fair market value per share of common stock on the option grant date. No option will have a term in excess of 10 years measured from the grant date.

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Vesting of Options. The vesting schedule for each granted option will be determined by the 1992 Plan Administrator at the time of the grant. The granted option may be

- o immediately exercisable for vested shares,
- o immediately exercisable for unvested shares subject to the Company's repurchase rights or
- o exercisable in installments for vested shares over the optionee's period of service.

Payment. Upon exercise of the option, the option price for the purchased shares will become immediately payable in cash or in shares of common stock valued at fair market value on the exercise date. The option may also be exercised through a cashless exercise procedure under which the optionee provides irrevocable instructions to a designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Company, out of the sale proceeds, an amount equal to the aggregate option price payable for the purchased shares plus all applicable withholding taxes.

Termination of Service. Upon cessation of service, the optionee will have a limited period of time in which to exercise any outstanding option to the extent the option is exercisable for vested shares. The Plan Administrator will have complete discretion to extend the period following the optionee's cessation of service during which his or her outstanding options may be exercised and/or to accelerate the exercisability or vesting of such options in whole or in part. Such discretion may be exercised at any time while the options remain outstanding.

Stockholder Rights and Option Assignability. No optionee is to have any stockholder rights with respect to the option shares until such optionee has exercised the option, paid the option price for the purchased shares and been issued a stock certificate for such shares. Options are generally not assignable or transferable other than by will or the laws of inheritance and, during the optionee's lifetime, the option may be exercised only by such optionee. However, the Plan Administrator may allow non-statutory options to be transferred or assigned during the optionee's lifetime to one or more members of the optionee's immediate family or to a trust established exclusively for one or more such family members, to the extent such transfer or assignment is in furtherance of the optionee's estate plan.

Stock Appreciation Rights. The 1992 Plan Administrator is authorized to issue two types of stock appreciation rights in connection with option grants made under the Discretionary Option Grant Program:

Tandem stock appreciation rights provide the holders with the right to surrender their options for an appreciation distribution from the Company equal in amount to the excess of

- o the fair market value of the vested shares of common stock subject to the surrendered option over
- o the aggregate exercise price payable for those shares.

Such appreciation distribution may, at the discretion of the Plan Administrator, be made in cash or in shares of common stock.

Limited stock appreciation rights may be granted to officers of the Company as part of their option grants. Any option with a limited stock appreciation right will automatically be cancelled, to the extent such option is at the time exercisable for fully-vested shares of Common Stock, upon the occurrence of a hostile take-over of the Company. Upon cancellation, the officer will be entitled

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to a cash distribution from the Company in an amount per vested option share equal to the excess of

- o the take-over price over
- o the exercise price payable for such share.

Cancellation/Regrant. The 1992 Plan Administrator will have the authority to effect, on one or more separate occasions, the cancellation of outstanding options under the Discretionary Grant Program which have exercise prices in excess of the then current market price of the common stock and to issue replacement options with an exercise price based on the lower market price of the common stock at the time of grant.

AUTOMATIC GRANT PROGRAM

Each individual who first becomes a non-employee Board member on or after the date of the annual meeting, whether through election by the stockholders or appointment by the Board, will automatically be granted at the time of such initial election or appointment a non-statutory stock option to purchase 20,000 shares of common stock, provided such individual has not otherwise been in the prior employ of the Company. In addition, at each annual stockholders meeting, each individual who is at that time re-elected as a non-employee Board member will automatically be granted a non-statutory stock option to purchase 10,000 shares of common stock. There is no limit on the number of such 10,000 share option grants a non-employee Board member may receive over his or her period of Board service, and re-elected Board members who have previously been in the Company's employ will be eligible to receive such grants.

The provisions which will govern each such option grant may be summarized as follows:

- o The option will have an exercise price per share equal to the fair market value per share of common stock on the grant date.
- o Each option will have a maximum term of 10 years measured from the grant date.
- o Each option will become exercisable for all the option shares upon the optionee's completion of one year of Board service measured from the grant date, subject to immediate acceleration upon certain changes in control of the Company if such option is not assumed not by the successor entity.
- o The option will remain exercisable for a three-month period following the optionee's cessation of Board service for any reason other than death. Should the optionee die while any option is still exercisable, then such option will remain exercisable for a 36-month period following such optionee's death and may be exercised by the personal representative of the optionee's estate or the person to whom the grant is transferred by the optionee's will or the laws of inheritance. In no event, however, may the option be

exercised after the expiration date of the maximum option term. During the applicable exercise period, the option may not be exercised for more than the number of shares (if any) for which it was exercisable at the time of the optionee's cessation of Board service.

The remaining terms and conditions of the option will in general conform to the terms described above for option grants made under the Discretionary Grant Program and will be incorporated into the option agreement evidencing the automatic grant.

STOCK ISSUANCE PROGRAM

Issue Price. Shares may be issued under the Stock Issuance Program at a price per share not less than 85% of their fair market value, payable in cash or through a promissory note payable to the Company. Shares may also be issued as a bonus for past services.

Vesting of Shares. The vesting schedule for each share issued will be determined by the 1992 Plan Administrator at the time of issuance. The shares may be fully and immediately vested upon issuance or may vest in one or more installments, subject to the Company's repurchase right, over the participant's period of service.

Stockholder Rights. The recipient of the shares will have full stockholder rights, including voting and dividend rights, whether or not the shares are vested. However, the recipient may not sell, transfer or assign any unvested shares issued under the 1992 Plan, except for certain limited family transfers.

Repurchase Rights. Should the recipient of unvested shares cease to remain in the Company's service before vesting in such shares, then those unvested shares must be immediately surrendered to the Company for cancellation, and the recipient will have no further stockholder rights with respect to those shares. To the extent the surrendered shares were previously issued to the recipient for consideration paid in cash or promissory note, the Company will refund the cash consideration paid for the surrendered shares and cancel the remaining principal balance of the note to the extent attributable to such surrendered shares. The 1992 Plan Administrator, however, will have the discretion to waive any such cancellation of unvested shares in whole or in part, thereby vesting those shares on an accelerated basis under such circumstances as the 1992 Plan Administrator may deem appropriate.

Payment. Upon issuance of the shares, the issue price for the purchased shares will become immediately payable in cash, in shares of common stock valued at fair market value on the date of issuance, or by promissory note payable to the Company. The promissory note may, at the discretion of the 1992 Plan Administrator, be subject to cancellation over the participant's period of service. Shares may also be issued for past services, without any cash or other payment required of the participant.

DIRECTOR FEE OPTION GRANT PROGRAM

Each non-employee Board member will have the right, to apply all or a portion of the fee otherwise payable to him in cash each year to the acquisition of a special option grant under the Director Fee Option Grant Program. The Board member must make his election to participate in the program for a particular calendar year by December 31 of the immediately preceding calendar year. The grant for each year of participation will automatically be made on the first trading day in January of that year and will have an exercise price per share equal to one-third of the fair market value of the option shares on the grant date. The number of option shares will be determined by dividing the total dollar amount of the fees subject to the Board member's election by two-thirds of the fair market value per share of common stock on the option grant date. As a result, the total spread on the option (the fair market value of the option shares on the grant date less the aggregate exercise price payable for those shares) will be equal to the portion of the fee subject to the Board member's election. Until the Company establishes an annual retainer fee for the non-employee Board members, the dollar amount of the fee subject to the Board

member's election each year will be equal to the number of regularly-scheduled Board meetings for that year multiplied by the per Board meeting fee in effect for such year.

The option will become exercisable for the option shares in a series of 12 successive equal monthly installments upon the optionee's completion of each month of Board service during the calendar year of the option grant. In the event the optionee ceases Board service for any reason (other than death or permanent disability), the unvested shares subject to the option at the time of such cessation will immediately terminate; however, the option will remain exercisable for the vested shares subject to the option until the earlier of

- o the expiration of the 10-year option term or
- o the end of the three-year period measured from the date of the optionee's cessation of Board service.

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Should the optionee's service as a Board member cease by reason of death or permanent disability, then the option will immediately become exercisable for all the shares of common stock subject to the option and may be exercised for such shares until the earlier of

- o the expiration of the 10-year option term or
- o the end of the three-year period measured from the date of the optionee's cessation of Board service.

GENERAL PROVISIONS

Change in Control. In the event that the Company is acquired by merger or asset sale, all outstanding options under the Discretionary Option Grant, Automatic Option Grant and Director Fee Option Grant Programs will be assumed by the successor corporation. If those options are not assumed, such options will vest on an accelerated basis immediately prior to such acquisition and will, to the extent not exercised for one or more option shares, terminate immediately prior to such acquisition. All unvested shares under the Discretionary Option Grant and Stock Issuance Programs will immediately vest upon the consummation of such acquisition, except to the extent the Company's repurchase rights with respect to those shares are assigned to the successor corporation. All options outstanding under the Automatic Option Grant and Director Fee Option Grant Programs at the time of such an acquisition will vest in full immediately prior to the effective date of such acquisition, whether or not assumed. Any options which are assumed in connection with such acquisition will automatically be adjusted immediately following such transaction, to apply and pertain to the number and class of securities that would be issuable to an actual holder of the same number of shares of common stock as are subject to such option immediately prior to the transaction.

Special Acceleration Agreements. The Company entered into an agreement with each employee holding one or more outstanding options under the 1992 Plan (including each executive officer other than Mr. Robinson), pursuant to which those options will automatically vest on an accelerated basis in the event that such individual's employment is terminated following

- o an acquisition of the Company by merger or asset sale in which those options are assumed or
- o a change in control of the Company effected through a successful tender offer for more than 50% of the Company's outstanding common stock or through a change in the majority of the Board as a result of one or more contested elections for Board membership.

These agreements assure such individuals that the economic benefit of their outstanding options under the 1992 Plan will be preserved in the event of a change in control or the subsequent termination of their employment by the successor entity. Mr. Robinson has entered into an employment agreement with the Company that provides for the immediate vesting of his options, except under

certain limited circumstances, upon his termination of employment in connection with certain events, including a change in control of the Company. The terms of this agreement are summarized below under "Executive Compensation And Other Information-Employment Contracts, Severance Agreements and Change of Control Arrangements."

The acceleration of options in the event of a change in control may be seen as an anti-takeover provision and may have the effect of discouraging a merger proposal, a takeover attempt or other efforts to gain control of the Company.

FINANCIAL ASSISTANCE

The 1992 Plan Administrator may institute a loan program to assist one or more participants in financing the exercise of outstanding options or the purchase of shares under the Discretionary Option Grant or Stock Issuance Program. The 1992 Plan Administrator will have complete discretion to determine the terms of any

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such financial assistance. However, the maximum amount of financing provided any individual may not exceed the cash consideration payable for the issued shares plus all applicable taxes. Any such financing may be subject to forgiveness in whole or in part, at the discretion of the 1992 Plan Administrator, over the participant's period of service.

SPECIAL TAX WITHHOLDING ELECTION

The 1992 Plan Administrator may provide one or more participants in the 1992 Plan with the election to have the Company withhold, from the shares of common stock otherwise issuable upon the exercise of non-statutory options or the vesting of unvested shares, a portion of those shares in satisfaction of the tax liability incurred in connection with their acquisition or vesting. Any election so made will be subject to the approval of the 1992 Plan Administrator, and no shares will be accepted in satisfaction of such tax liability except to the extent the 1992 Plan Administrator approves the election. Alternatively, one or more participants may be granted the right, subject to 1992 Plan Administrator approval, to deliver existing shares of common stock in satisfaction of such tax liability. The withheld or delivered shares will be valued at their then current fair market value.

AMENDMENT AND TERMINATION

The Board of Directors may amend or modify the 1992 Plan in any or all respects whatsoever. However, no such amendment may adversely affect the rights of existing optionees or participants without their consent. In addition, certain amendments may require stockholder approval pursuant to applicable laws or regulations.

The Board may terminate the 1992 Plan at any time, and the 1992 Plan will in all events terminate on November 16, 2002.

Each stock option outstanding at the time of such termination will remain in force in accordance with the provisions of the documents evidencing such grant.

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STOCK AWARDS

The table below shows, as to the Company's Chief Executive Officer and each of the other four most highly compensated executive officers of Company (collectively, the "Named Executive Officers") and the various indicated individuals and groups, the number of shares of Common Stock subject to options granted under the 1992 Plan between January 1, 1998 and April 1, 1999, together with the weighted average exercise price payable per share.

<TABLE>

<CAPTION>

Name and Principal Position	Options	Weighted Average Exercise Price	
	(#)	(#)	
DAVID E. ROBINSON Chairman of the Board, President, Chief Executive Officer and Director	100,000		\$ 15.00
WILLIAM L. RESPESS Senior Vice President, General Counsel, Government Affairs and Secretary	66,350		9.3125
ANDRES F. NEGRO-VILAR Senior Vice President, Research and Chief Scientific Officer	70,875		9.3125
STEVEN D. REICH Senior Vice President, Clinical Research	29,000		11.25
PAUL V. MAIER Senior Vice President and Chief Financial Officer	66,914		9.3125
HENRY F. BLISSENBACH Director-Nominee	10,000		14.50
ALEXANDER D. CROSS, PH.D Director-Nominee	10,000		14.50
JOHN GROOM Director-Nominee	10,000		14.50
IRVING S. JOHNSON Director-Nominee	10,000		14.50
CARL C. PECK, M.D Director-Nominee	10,000		14.50
MICHAEL A. ROCCA Nominee	0		0
All current directors who are not executive officers (6 persons) ...	66,237		13.70
All current executive officers as a group (10 persons)	486,139		10.66
All employees who are not executive officers	1,185,694		11.56

NEW PLAN BENEFITS

As of March 1, 1999, no options have been granted, and no direct stock issuances have been made, on the basis of the 985,000-share increase which forms part of this Proposal. Provided stockholders approve this proposal, each of the following non-employee Board members will, upon his or her re-election to the Board at the annual meeting, receive an option grant under the Automatic Option Grant Program for 10,000 shares of common

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stock: Messrs. Blissenbach and Groom and Drs. Cross, Johnson and Peck. In addition, Mr. Rocca will receive an option grant under the Automatic Option Grant Program for 20,000 shares of common stock upon his election to the Board at the annual meeting. Each option will have an exercise price per share equal to the fair market value per share of common stock on the grant date.

FEDERAL INCOME TAX CONSEQUENCES

Options granted under the 1992 Plan may be either incentive stock options which satisfy the requirements of Section 422 of the Internal Revenue Code or non-statutory options which are not intended to meet such requirements. The Federal income tax treatment for the two types of options differs as follows:

Incentive Options. No taxable income is recognized by the optionee at the time of the option grant, and no taxable income is generally recognized at the time the option is exercised. However, the amount by which the fair market value of the purchased shares at time of exercise exceeds the exercise price may have an impact on taxes for purposes of the alternative minimum tax. The optionee will recognize taxable income in the year in which the purchased shares are sold or otherwise made the subject of a taxable disposition. For Federal tax purposes, dispositions are divided into two

categories: qualifying and disqualifying. A qualifying disposition occurs if the sale or other disposition is made more than two years after the option grant date and more than one year after the date the option was exercised. If either of these two holding periods is not satisfied, then a disqualifying disposition will result.

Upon a qualifying disposition, the optionee will recognize long-term capital gain in an amount equal to the excess of

- o the amount realized upon the sale or other disposition of the purchased shares over
- o the exercise price paid for the shares.

If there is a disqualifying disposition of the shares, the optionee will recognize taxable ordinary income for the amount equal to the excess of

- o the fair market value of those shares on the exercise date over
- o the exercise price paid for the shares.

Any additional gain or loss recognized upon the disposition will be recognized as a capital gain or loss by the optionee.

If the optionee makes a disqualifying disposition of the purchased shares, then the Company will be entitled to an income tax deduction, for the taxable year in which such disposition occurs, equal to the excess of

- o the fair market value of such shares on the option exercise date over
- o the exercise price paid for the shares.

If the optionee makes a qualifying disposition, the Company will not be entitled to any income tax deduction.

Non-Statutory Options. No taxable income is recognized by an optionee upon the grant of a non-statutory option. The optionee will in general recognize ordinary income in the year in which the option is exercised equal to the excess of the fair market value of the purchased shares on the exercise date over the exercise price paid for the shares, and the optionee will be required to satisfy the tax withholding requirements applicable to such income.

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If the shares acquired upon exercise of the non-statutory option are unvested and subject to repurchase by the Company in the event of the optionee's termination of service prior to vesting in those shares, then the optionee will not recognize any taxable income at the time of exercise but will have to report as ordinary income, as and when the Company's repurchase right lapses, an amount equal to the excess of

- o the fair market value of the shares on the date the repurchase right lapses over
- o the exercise price paid for the shares.

The optionee may, however, elect under Section 83(b) of the Internal Revenue Code to include as ordinary income in the year of exercise of the option an amount equal to the excess of

- o the fair market value of the purchased shares on the exercise date over
- o the exercise price paid for such shares.

If the Section 83(b) election is made, the optionee will not recognize any additional income as and when the repurchase right lapses.

The Company will be entitled to an income tax deduction equal to

the amount of ordinary income recognized by the optionee with respect to the exercised non-statutory option. The deduction will in general be allowed for the taxable year of the Company in which such ordinary income is recognized by the optionee.

Stock Appreciation Rights. An optionee who is granted a stock appreciation right will recognize ordinary income in the year of exercise equal to the amount of the appreciation distribution. The Company will be entitled to an income tax deduction equal to such distribution for the taxable year in which the ordinary income is recognized by the optionee.

Direct Stock Issuance. The tax principles applicable to direct stock issuances under the 1992 Plan will be substantially the same as those summarized above for the exercise of non-statutory option grants.

Deductibility of Executive Compensation. The Company anticipates that any compensation deemed paid by it in connection with the disqualifying disposition of incentive stock option shares or the exercise of non-statutory options granted with exercise prices equal to the fair market value of the shares on the grant date will qualify as performance-based compensation for purposes of Code Section 162(m) and will not have to be taken into account for purposes of the \$1 million limitation per covered individual on the deductibility of the compensation paid to certain executive officers of the Company. Accordingly, all compensation deemed paid under the 1992 Plan will remain deductible by the Company without limitation under Code Section 162(m).

ACCOUNTING TREATMENT

Under the current accounting principles in effect for equity incentive programs such as the 1992 Plan, the option grants under the 1992 Plan will not result in any direct charge to the Company's reported earnings. However, the fair value of those options is required to be disclosed in the notes to the Company's financial statements, and the Company must also disclose, in footnotes to the Company's financial statements, the pro-forma impact those options would have upon the Company's reported earnings were the fair value of those options at the time of grant treated as a compensation expense and amortized over the applicable vesting period. In addition, the number of outstanding options may be a factor in determining the Company's earnings per share on a fully-diluted basis.

Under a recently-proposed amendment to the current accounting principles, option grants made to non-employee Board members or consultants after December 15, 1998 will result in a direct charge to the Company's reported earnings based upon the fair value of the option measured on the vesting date of each installment of the underlying option shares. Such charge will accordingly include the appreciation in the value of the option shares over the period between the grant date of the option (or, if later, the effective date of the final amendment) and the vesting date of each installment of the option shares.

Should one or more individuals be granted tandem or stand-alone stock appreciation rights under the 1992 Plan, then such rights would result in a compensation expense to be charged against the Company's reported earnings. Accordingly, at the end of each fiscal quarter, the amount (if any) by which the fair market value of the shares of Common Stock subject to such outstanding stock appreciation rights has increased from the prior quarter-end would be accrued as compensation expense, to the extent such fair market value is in excess of the aggregate exercise price in effect for those rights.

STOCKHOLDER APPROVAL

The affirmative vote of a majority of the outstanding voting shares of the Company present or represented and entitled to vote at the annual meeting is required for approval of the amendments to the 1992 Plan. Should such stockholder approval not be obtained, then the 985,000-share increase to the share reserve will not be implemented, any stock options granted on the basis of the 985,000-share increase to the 1992 Plan will immediately terminate without becoming exercisable for the shares of Common Stock subject to those options, and no additional options will be granted on the basis of such share increase. However, in the absence of such stockholder approval, the 1992 Plan will

continue to remain in effect, and option grants and direct stock issuances may continue to be made pursuant to the provisions of the 1992 Plan in effect prior to the amendment summarized in this Proposal, until the available reserve of Common Stock as last approved by the stockholders has been issued pursuant to the exercise of options granted or direct stock issuances made under the 1992 Plan.

RECOMMENDATION OF THE BOARD OF DIRECTORS

The Board of Directors unanimously recommends a vote FOR the amendments to the 1992 Plan.

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PROPOSAL NO. 3 APPROVAL OF AN AMENDMENT TO THE COMPANY'S 1992 EMPLOYEE STOCK PURCHASE PLAN

The Company's stockholders are being asked to approve an amendment to the 1992 Employee Stock Purchase Plan which will increase the maximum number of shares of Common Stock authorized for issuance over the term of the Purchase Plan by an additional 95,000 shares.

The purpose of the share increase is to ensure that the Company will continue to have a sufficient reserve of Common Stock available under the purchase plan to provide eligible employees of the Company and its participating affiliates with the opportunity to acquire a proprietary interest in the Company through participation in a payroll-deduction based employee stock purchase plan under Section 423 of the Internal Revenue Code.

The purchase plan was adopted by the Board of Directors and approved by the stockholders in 1992. In February and March 1999, the Board approved the increase in the share reserve of the purchase plan which is the subject of this Proposal.

The following is a summary of the principal features of the purchase plan, as amended. This summary does not, however, purport to be a complete description of all the provisions of the purchase plan. Any stockholder who wishes to obtain a copy of the actual plan document may do so by written request to the Corporate Secretary at the Company's principal executive offices in San Diego, California.

SHARE RESERVE AND PLAN ADMINISTRATION

355,000 shares of common stock have been reserved for issuance over the 10-year term of the purchase plan, including the 95,000-share increase for which stockholder approval is sought under this Proposal. As of April 1, 1999, 259,915 shares of Common Stock had been issued under the purchase plan, and 95,085 shares will be available for future issuance, assuming stockholder approval of the 95,000-share increase which is the subject of this Proposal. Without such increase, 85 shares would be available for future issuance.

Should any change be made to the outstanding Common Stock by reason of any stock dividend, stock split, combination of shares or other similar change affecting the outstanding Common Stock as a class without the Company's receipt of consideration, appropriate adjustments will be made to

- o the class and maximum number of securities issuable over the term of the purchase plan,
- o the class and maximum number of securities purchasable per participant during any one offering period and
- o the class and number of securities and the price per share in effect under each outstanding purchase right.

Such adjustments are designed to preclude the dilution or enlargement of rights and benefits under the purchase plan.

The purchase plan is administered by the Compensation Committee

of the Board of Directors. The committee as Plan Administrator has full authority to administer the purchase plan, including the authority to interpret and construe any provision of the purchase plan.

ELIGIBILITY

Any individual who is employed by either the Company or any participating parent or subsidiary (including any corporation which subsequently becomes such at any time during the term of the purchase plan) on a

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regularly-scheduled basis of more than 20 hours per week and more than five months per calendar year is eligible to participate in the purchase plan. An eligible employee may join an offering period on the first day of the first calendar quarter within that period following his or her completion of at least five months of employment with the Company.

As of March 1, 1999, approximately 339 employees (including 10 officers of the Company) were eligible to participate in the purchase plan.

PLAN OPERATION

Shares of common stock will be made available to participants through a series of one-year offering periods, each coincidental with the calendar year. Each participant will be granted a separate purchase right for each offering period in which he or she participates. The purchase right will be granted on the first day of the offering period (the first business day in January) and will be automatically exercised in successive quarterly installments on the last business day of March, June, September and December during the offering period.

Each participant may, through authorized payroll deductions, contribute up to 10% of his or her base salary (in 1% multiples) during each offering period. However, no participant may purchase more than 1,330 shares of common stock during any one offering period nor more than \$25,000 worth of Common Stock (based upon the value of the common stock at the time the offering period begins) per calendar year.

The purchase price on each quarterly purchase date will be equal to the lower of

- o 85% of the fair market value per share of common stock on the participant's entry date into the offering period
or
- o 85% of the fair market value per share of common stock on the quarterly purchase date.

However, in no event will the fair market value in the first clause be less than the fair market value per share of common stock on the start date of such offering period.

The fair market value of the common stock on any relevant date will be deemed to be equal to the closing selling price per share on such date as reported on the Nasdaq National Market. As of March 1, 1999, the fair market value per share of common stock determined on such basis was \$9.625.

No participant will have any stockholder rights with respect to the shares covered by his or her outstanding purchase right until the shares are actually purchased on his or her behalf. No purchase right will be assignable or transferable except by will or by the laws of descent and distribution following the participant's death. Accordingly, during the participant's lifetime, the purchase right will be exercisable only by the participant.

The purchase right of a participant will terminate upon his or her cessation of employee status, and any payroll deductions collected from such individual during the calendar quarter in which such termination occurs will, at such participant's election, either

- o be refunded to the participant or

- o held for the purchase of shares on the next quarterly purchase date.

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CHANGE IN OWNERSHIP

In the event the Company is acquired by merger or asset sale, all outstanding purchase rights will automatically be exercised immediately prior to the effective date of such acquisition. The purchase price will be equal to 85% of the lower of

- o the fair market value per share of common stock on the participant's entry date into the offering period in which such acquisition occurs or
- o the fair market value per share of common stock immediately prior to the effective date of such acquisition, but in no event will the fair market value on the participant's entry date be less than the fair market value per share of common stock on the start date of the offering period in which such acquisition occurs.

AMENDMENT AND TERMINATION

The purchase plan will terminate upon the earlier of

- o December 31, 2002 or
- o the date on which all shares available for issuance thereunder are sold pursuant to exercised purchase rights.

However, the Company has specifically reserved the right, exercisable in the sole discretion of the Plan Administrator, to terminate all outstanding purchase rights under the purchase plan immediately following any quarterly purchase date. If such right is exercised by the Company, then the purchase plan will terminate in its entirety, and no further purchase rights will be granted or exercised thereunder.

The Board may amend or modify the provisions of the purchase plan at any time. However, the Board may not, without stockholder approval,

- o increase the number of shares issuable under the purchase plan or the maximum number of shares which any one participant may purchase during a single offering period,
- o alter the purchase price formula so as to reduce the purchase price, or
- o materially increase the benefits accruing to participants.

FEDERAL TAX CONSEQUENCES

The purchase plan is intended to be an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code. Under a plan which so qualifies, no taxable income will be recognized by a participant, and no deductions will be allowable to the Company, upon either the grant or the exercise of the purchase rights. Taxable income will not be recognized until there is a sale or other disposition of the shares acquired under the purchase plan or in the event the participant should die while still owning the purchased shares.

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If the participant sells or otherwise disposes of the purchased

shares within two years after his or her entry date into the offering period in which such shares were acquired or within one year after the quarterly purchase date on which those shares were actually acquired, then the participant will recognize ordinary income in the year of sale or disposition equal to the amount by which the fair market value of the shares on the purchase date exceeded the purchase price paid for those shares, and the Company will be entitled to an income tax deduction, for the taxable year in which such disposition occurs, equal in amount to such excess.

If the participant sells or disposes of the purchased shares more than two years after his or her entry date into the offering period in which the shares were acquired and more than one year after the quarterly purchase date of those shares, then the participant will recognize ordinary income in the year of sale or disposition equal to the lower of

- o the amount by which the fair market value of the shares on the sale or disposition date exceeded the purchase price paid for those shares or
- o 15% of the fair market value of the shares on the participant's entry date into that offering period. Any additional gain upon the disposition will be taxed as a long-term capital gain.

The Company will not be entitled to an income tax deduction with respect to such disposition.

If the participant still owns the purchased shares at the time of death, his or her estate will recognize ordinary income in the year of death equal to the lower of

- o the amount by which the fair market value of the shares on the date of death exceeds the purchase price or
- o 15% of the fair market value of the shares on his or her entry date into the offering period in which those shares were acquired.

ACCOUNTING TREATMENT

The issuance of common stock under the purchase plan will not result in a direct compensation expense chargeable against the Company's reported earnings. However, the Company must disclose, in pro-forma statements to the Company's financial statements, the impact the purchase rights granted under the purchase plan would have upon the Company's reported earnings were the value of those purchase rights treated as compensation expense.

STOCK ISSUANCES

The table below shows, as to the Named Executive Officers and as to the various indicated groups, the number of shares of Common Stock and the weighted average purchase price per share, with respect to transactions under the purchase plan effected during the period from January 1, 1998 to April 1, 1999:

Non-employee directors are not eligible to participate in the purchase plan.

<TABLE>
<CAPTION>

	Shares (#)	Weighted Average Purchase Price	
	-----	-----	
	<C>	<C>	
<S>			
DAVID E. ROBINSON	0	\$ 0	
Chairman of the Board, President and Chief Executive Officer			
WILLIAM L. RESPESSE	0	0	

Senior Vice President, General Counsel, Government Affairs and Secretary		
STEVEN D. REICH	0	0
Senior Vice President, Clinical Research		
ANDRES F. NEGRO-VILAR	0	0
Senior Vice President, Research and Chief Scientific Officer		
PAUL V. MAIER	1,737	8.96
Senior Vice President and Chief Financial Officer		
All current directors who are not executive officers (6 persons) ..	0	0
All current executive officers as a group (10 persons)	4,493	8.80
All employees who are not executive officers	60,498	9.09

NEW PURCHASE PLAN BENEFITS

No shares of Common Stock have been issued under the purchase plan on the basis of the 95,000-share increase for which stockholder approval is sought under this Proposal.

STOCKHOLDER APPROVAL

The affirmative vote of a majority of the outstanding voting shares of the Company present or represented and entitled to vote at the annual meeting is required for approval of the 95,000-share increase to the purchase plan. Should such stockholder approval not be obtained, then the 95,000-share increase will not be implemented, all purchase rights granted on the basis of such share increase will be terminated, any payroll deductions collected in connection with such purchase rights will be refunded to the employees, and the purchase plan will terminate once the existing share reserve as previously approved by the stockholders has been issued.

RECOMMENDATION OF THE BOARD OF DIRECTORS

The Board of Directors unanimously recommends that the stockholders vote FOR this proposal.

PROPOSAL NO. 4
RATIFICATION OF INDEPENDENT AUDITORS

The Company is asking the stockholders to ratify the selection of Ernst & Young LLP ("Ernst & Young") as the Company's independent auditors for the year ending December 31, 1999. The affirmative vote of the holders of a majority of the shares represented and voting at the annual meeting will be required to ratify the selection of Ernst & Young.

In the event the stockholders fail to ratify the selection, the Board of Directors will reconsider its selection. Even if the selection is ratified, the Board of Directors, in its discretion, may direct the appointment of a different independent auditing firm at any time during the year if the Board of Directors feels that such a change would be in the Company's and its stockholders' best interests.

Representatives of Ernst & Young are expected to be present at the Annual Meeting, will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

RECOMMENDATION OF THE BOARD OF DIRECTORS

The Board of Directors unanimously recommends that the stockholders vote FOR the ratification of the selection of Ernst & Young to serve as the Company's independent auditors for the year ending December 31, 1999.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information known to the Company with respect to the beneficial ownership of the Company's common stock as of March 1, 1999, by

- o all persons who are beneficial owners of 5% or more of the Company's common stock,
- o each director and nominee for director,
- o the Named Executive Officers and
- o all current directors and executive officers as a group.

Unless otherwise indicated, each of the stockholders has sole voting and investment power with respect to the shares beneficially owned, subject to community property laws, where applicable. Percentage of ownership is based on 46,151,837 shares of common stock outstanding on March 1, 1999. Shares of common stock underlying options includes options which are currently exercisable or will become exercisable within 60 days after March 1, 1999, are deemed outstanding for computing the percentage of the person or group holding such options, but are not deemed outstanding for computing the percentage of any other person or group. The address for individuals for whom an address is not otherwise indicated is 10275 Science Center Drive, San Diego, CA 92121. On March 8, 1999, Eli Lilly and Company acquired an additional 434,546 shares of common stock. As a result, Lilly owned 2,675,160 shares or approximately 5.7% of common stock outstanding on that date.

SECURITY OWNERSHIP OF DIRECTORS AND MANAGEMENT

<TABLE>
<CAPTION>

BENEFICIAL OWNER	NUMBER OF NUMBER OF SHARES BENEFICIALLY OWNED		SHARES UNDERLYING OPTIONS	PERCENT OF CLASS OWNED
-----	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>
Henry F. Blissenbach.....	0	32,473	*	*
Alexander D. Cross.....	18,766	32,473	*	*
Victoria R. Fash.....	0	16,273	*	*
John Groom.....	0	32,473	*	*
Irving S. Johnson.....	22,909	32,473	*	*
Carl C. Peck.....	0	16,237	*	*
Michael A. Rocca.....	0	0	*	*
David E. Robinson.....	249,002	324,290	1.2%	1.2%
William L. Respass.....	141,741	206,128	*	*
Andres F. Negro-Vilar.....	5,013	73,443	*	*
Steven D. Reich.....	2,000	83,458	*	*
Paul V. Maier.....	10,780	174,471	*	*
Directors and executive officers as a group (16) persons.....	462,056	1,518,670	4.2%	4.2%

</TABLE>

* Less than 1%

EXECUTIVE OFFICERS

The executive officers of the Company as of March 1, 1999 are as follows:

<TABLE>

<CAPTION>

Name	Age	Position
David E. Robinson	50	Chairman of the Board, President, Chief Executive Officer and Director
Paul V. Maier	51	Senior Vice President, Chief Financial Officer
Andres F. Negro-Vilar, M.D., Ph.D.	59	Senior Vice President, Research and Chief Scientific Officer
William A. Pettit	49	Senior Vice President, Human Resources and Administration
Steven D. Reich, M.D.	53	Senior Vice President, Clinical Research
William L. Respass, J.D., Ph.D.	59	Senior Vice President, General Counsel, Government Affairs and Secretary
Russell L. Allen	52	Vice President, Corporate Development and Strategic Planning
George M. Gill, M.D.	65	Vice President, Medical Affairs
Howard T. Holden, Ph.D.	54	Vice President, Regulatory Affairs and Compliance
James R. Mirto	56	Vice President, Marketing and Business Development

BUSINESS EXPERIENCE OF EXECUTIVE OFFICERS

DAVID E. ROBINSON is being considered for the position of director of the Company. See "Election of Directors" for a discussion of Mr. Robinson's business experience.

PAUL V. MAIER joined the Company in October 1992 as Vice President and Chief Financial Officer and became Senior Vice President and Chief Financial Officer in November 1996. Prior to joining the Company, Mr. Maier served as Vice President, Finance at DFS West, a division of DFS Group, L.P., a private multinational retailer. From February 1990 to October 1990, Mr. Maier served as Vice President and Treasurer of ICN Pharmaceuticals, Inc., a pharmaceutical and biotechnology research products company. Mr. Maier held various positions in finance and administration at SPI Pharmaceuticals, Inc., a publicly held subsidiary of ICN Pharmaceuticals Group, from 1984 to 1988, including Vice President, Finance from February 1984 to February 1987. Mr. Maier received an M.B.A. from Harvard Graduate School of Business and a B.S. from Pennsylvania State University.

ANDRES F. NEGRO-VILAR, M.D., Ph.D. joined the Company in September 1996 as Senior Vice President, Research, and Chief Scientific Officer. Prior to joining the Company, Dr. Negro-Vilar was Vice President of Research and Head of the Women's Health Research Institute for Wyeth-Ayerst Laboratories, a division of American Home Products, from 1993 to 1996. From 1983 to 1993, Dr. Negro-Vilar served at the National Institute of Environmental Health Sciences of the National Institutes of Health as the Director of Clinical Programs and Chief of the Laboratory of Molecular and Integrative Neurosciences. Dr. Negro-Vilar received a Ph.D. in physiology from the University of Sao Paulo, Brazil, an M.D. from the University of Buenos Aires, Argentina, and a B.S. in science from Belgrano College.

WILLIAM A. PETTIT joined the Company in November 1996 as Senior Vice President, Human Resources and Administration. Prior to joining the Company, Mr. Pettit was Senior Vice President, Human Resources at Pharmacia, and Upjohn, Inc., a global pharmaceutical and healthcare company, where he was employed from 1986 to 1996. From 1984 to 1986, Mr. Pettit served as Corporate Director, Human Resources at Browning Ferris Industries, a waste services company. From 1975 to 1984, Mr. Pettit served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company) including Director, Human Resources. Mr. Pettit received a B.A. in English from Amherst College.

STEVEN D. REICH, M.D. joined the Company in December 1995 as the Senior Vice President, Clinical Research. Prior to joining the Company, Dr. Reich was at the clinical contract research organization PAREXEL International Corporation, a contract research and contract marketing company, from 1987 to 1995, where he served as Senior Vice President, Medical Affairs responsible for worldwide medical and clinical affairs services including clinical trials management, medical consulting and medical writing. From 1986 to 1987, Dr. Reich served as worldwide Medical Research Director of Biogen, Inc., a biopharmaceutical company ("Biogen"), and held various positions at Biogen from 1983 to 1986. Earlier in his career Dr. Reich served as Associate Director of Clinical Cancer Research for Bristol Laboratories (1978-1979). He is a Board certified Medical Oncologist and has held academic positions as a clinical pharmacologist at Northwestern University, SUNY-Upstate Medical School, and University of Massachusetts Medical Center. Dr. Reich received an M.D. from the New Jersey College of Medicine and an A.B. from Princeton University.

WILLIAM L. RESPESS, J.D., Ph.D. joined the Company in December 1988 as Vice President and General Counsel, became Senior Vice President and General Counsel in August 1993 and assumed responsibility for Government Affairs in March 1995. Prior to joining the Company, Dr. Respass was Vice President and General Counsel at Gen-Probe, Inc., a biotechnology company, from 1987 to 1988. From 1983 to 1986, he served as Vice President and General Counsel at Hybritech, Inc., a biotechnology company. From 1974 to 1983, he was an attorney with the patent law firm of Lyon & Lyon of Los Angeles, serving as Partner from 1980 to 1983. Dr. Respass received a J.D. from George Washington University, a Ph.D. in organic chemistry from the Massachusetts Institute of Technology and a B.S. in chemistry from the Virginia Military Institute.

RUSSELL L. ALLEN joined the Company in February 1997 as Vice President, Corporate Development and Strategic Planning. Prior to joining Company, Mr. Allen was General Manager, Central America, Sanofi Winthrop Inc. and previously served as Vice President, Business Development Strategic Analysis at Sterling Winthrop Inc. where he was employed from 1985 to 1996. From 1980 to 1985, Mr. Allen served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company) and from 1973 to 1980, held various positions at Procter & Gamble. Mr. Allen received an M.B.A. from Harvard Graduate School of Business and a B.A. from Amherst College.

GEORGE M. GILL, M.D. joined the Company in September 1992 as Vice President, Clinical Research and became Vice President, Medical Affairs in January 1996. Prior to joining the Company, Dr. Gill was Senior Director, Clinical Research at ICI Pharmaceutical Research and Development, a bioscience company, where he also served as Director of Clinical Research, Clinical and Medical Affairs from 1990 to 1992. From 1984 to 1990, Dr. Gill served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company), including Vice President, Worldwide Regulatory Affairs. Dr. Gill received an M.D. from the University of Pennsylvania and a B.S. in chemistry from Dickinson College and is Board certified in pediatrics.

HOWARD T. HOLDEN, Ph.D. joined the Company in September 1992 as Vice President, Regulatory Affairs and Compliance. Prior to joining the Company, Dr. Holden was Senior Director, Worldwide Regulatory Affairs at Parke-Davis Pharmaceutical Research Division of the Warner-Lambert Company. From 1986 to 1988, Dr. Holden served as Director, Regulatory Affairs and Compliance at Centocor Inc., a pharmaceutical company. Dr. Holden received a Ph.D. in microbiology from the University of Miami and a B.A. in zoology from Drew University.

JAMES R. MIRTO joined the Company in August 1993 as Vice President, New Product Development and Licensing and became Vice President, Marketing and Business Development in October 1996. Prior to joining the Company, Mr. Mirto served as Vice President of New Product Planning and Development at Immunex Corporation, a biopharmaceutical company, from November 1992 to August 1993 where he oversaw tactical and strategic planning, collaborative arrangements and world-wide licensing activities. From 1987 to 1992, he worked for Adria Laboratories, a division of Erbamont, where he last served as Vice President of Sales and Marketing from April 1990 to November 1992 and was responsible for the company's oncology and general pharmaceuticals. Mr. Mirto received an M.Ed. in education from the University of Pittsburgh and received a B.S. in health and physical education from Slippery Rock State

EXECUTIVE COMPENSATION AND OTHER INFORMATION

SUMMARY OF CASH AND CERTAIN OTHER COMPENSATION

The following table provides certain summary information concerning the compensation earned, by the Named Executive Officers, for services rendered in all capacities to the Company and its subsidiaries for the fiscal years ended December 31, 1998, 1997 and 1996, respectively.

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation Awards		Options/ SARs(#)
		Salary(\$)	Other Annual Bonus(\$)	Underlying Compensation(\$)	Securities	
DAVID E. ROBINSON.....	1998	531,650	--	2,592	100,000	
Chairman of the Board,	1997	511,832	85,000	58,448	100,000	
President and CEO	1996	486,295	80,000	68,292	100,000	
WILLIAM L. RESPESS.....	1998	294,821	--	3,300	66,350	
Senior Vice President,	1997	282,125	21,000	3,994	50,000	
General Counsel, Government Affairs and Secretary	1996	268,625	124,000	3,465	6,750	
ANDRES F. NEGRO-VILAR (4).....	1998	288,864	--	56,220	70,875	
Senior Vice President,	1997	274,410	24,000	92,236	--	
Research and Chief Scientific Officer	1996	90,000	--	103,912	100,000	
STEVEN D. REICH.....	1998	249,613	--	27,200	29,000	
Senior Vice President, Clinical Research	1997	240,013	18,000	47,600	--	
	1996	227,500	22,500	38,510	90,000	
PAUL V. MAIER.....	1998	238,444	--	2,024	66,914	
Senior Vice President and Chief Financial Officer	1997	226,550	28,500	17,169	--	
	1996	212,627	22,500	17,379	58,563	

- (1) Compensation deferred at the election of the executive, pursuant to the Ligand Pharmaceuticals 401(k) Plan and Ligand Deferred Compensation Plan are included in the year earned.
- (2) Bonuses to be paid to the Named Executive Officers for services rendered during 1998 will be determined following the mailing of this proxy statement.
- (3) The amounts for 1998 include the following: for Dr. Negro-Vilar, includes \$37,920 loan forgiveness and \$15,000 housing allowance; for Dr. Reich, includes \$25,088 loan forgiveness. The amounts for 1997 include the following: for Mr. Robinson, includes \$52,660 loan forgiveness; for Dr. Negro-Vilar, includes \$15,000 housing allowance, \$32,604 relocation reimbursements and \$39,900 loan forgiveness; for Dr. Reich, includes \$11,000 housing allowance, \$9,088 relocation reimbursements and \$26,360 loan forgiveness; and for Mr. Maier, includes \$15,798 loan forgiveness. The amounts for 1996 include the following: for Mr. Robinson, includes \$10,876 relocation reimbursements and \$55,230 loan forgiveness; for Dr. Negro-Vilar includes \$103,912 relocation reimbursements; for Dr. Reich,

includes \$25,358 relocation reimbursements and \$12,000 housing allowance; and for Mr. Maier, includes \$16,596 loan forgiveness.

- (4) Dr. Negro-Vilar joined the Company in August 1996.

STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

The following table provides information on the option grants made to the Named Executive Officers during the fiscal year ended December 31, 1998. No stock appreciation rights were granted to the Named Executive Officers during that fiscal year.

OPTION/SAR GRANTS IN LAST FISCAL YEAR

<TABLE>
<CAPTION>

Individual Grants

Name	Number of Securities Underlying Options/SARs Granted (#)(1)(2)	% of Total Options/SARs Granted to Employees in Fiscal Year	Exercise or Base Price (\$/Sh)(3)	Expiration Date	Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(4)	
					5%(\$)	10%(\$)
<S>	<C>	<C>	<C>	<C>	<C>	<C>
David E. Robinson	100,000	6.3%	15.00	04/09/08	943,342	2,390,613
William L. Respass	66,350	4.2%	9.3125	10/01/08	388,584	984,749
Andres Negro-Vilar	70,875	4.5%	9.3125	10/01/08	415,085	1,051,907
Steven D. Reich	29,000	1.8%	11.25	02/05/08	205,177	519,958
Paul V. Maier	66,914	4.2%	9.3125	10/01/08	391,887	993,119

</TABLE>

- (1) Each option has a maximum term of 10 years measured from such grant date, subject to earlier termination upon the optionee's cessation of service with the Company. The shares subject to each option will vest in four successive equal annual installments upon the optionee's completion of each year of service with the Company over the four-year period measured from the option grant date. The shares subject to the options granted to Mr. Robinson will accelerate in connection with his termination of employment under certain circumstances, including a change in control of the Company, as described below in the "--Employment Contracts, Severance Agreements and Change of Control Arrangements." The shares subject to the option granted to the other Named Executive Officers will immediately vest in full in the event their employment were to terminate following certain changes in control of the Company.
- (2) The Plan Administrator may grant tandem stock appreciation rights in connection with option grants which require the holder to elect between the exercise of the underlying option for shares of Common Stock and the surrender of such option for a distribution from the Company, payable in cash or shares of Common Stock, based upon the appreciated value of the option shares.
- (3) The exercise price may be paid in cash, in shares of Common Stock valued at fair market value on the exercise date or through a cashless exercise procedure involving a same-day sale of the purchased shares. The Company may also finance the option exercise by loaning the optionee sufficient funds to pay the exercise price for the purchased shares and the federal and state tax liability incurred in connection with such exercise. The optionee may be permitted, subject to the approval of the Plan Administrator, to apply a portion of the shares purchased under the option (or to deliver existing shares of Common Stock) in satisfaction of such tax liability.

- (4) The Company does not provide assurance to any executive officer or any other holder of the Company's securities that the actual stock price appreciation over the 10-year option term will be at the assumed 5% and 10% levels or at any other defined level. Unless the market price of the Common Stock does in fact appreciate over the option term, no value will be realized from the option grants made to the executive officers.

OPTION/SAR EXERCISES AND HOLDINGS

The following table sets forth certain information concerning option exercises and holdings for the fiscal year ended December 31, 1998 with respect to each of the Named Executive Officers. No stock appreciation rights were exercised by the Named Executive Officers during such fiscal year, and no stock appreciation rights were held by them at the end of such fiscal year.

AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR-END OPTION VALUES

<TABLE>
<CAPTION>

NAME	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS/SARS AT DECEMBER 31, 1998		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS/SARS AT DECEMBER 31, 1998(2)	
	EXERCISABLE(#)	UNEXERCISABLE(#)	EXERCISABLE(\$)	UNEXERCISABLE(\$)
<S>	<C>	<C>	<C>	<C>
David E. Robinson	296,165	181,250	661,523	51,693
William L. Respass	193,668	93,433	505,239	153,434
Andres Negro-Vilar	56,250	114,625	0	163,898
Steven D. Reich	73,542	45,458	213,203	78,922
Paul V. Maier	161,523	94,414	368,842	154,739

- (1) Equal to the fair market value of the shares on the date the option was exercised for those shares minus the exercise price paid for such shares.
- (2) Equal to the fair market value of the securities underlying the option at fiscal year-end (\$11.625 per share), less the exercise price payable for those securities.

EMPLOYMENT CONTRACTS, SEVERANCE AGREEMENTS AND CHANGE OF CONTROL ARRANGEMENTS

In May 1996, the Company entered into an employment agreement with Mr. Robinson pursuant to which he is to be employed as President and Chief Executive Officer until May 1, 1999. In October 1998, this agreement was renewed for an additional three year term until May 1, 2002. This agreement will automatically be renewed for successive additional three year terms, unless earlier terminated by the Company or Mr. Robinson. During the remainder of the employment term, Mr. Robinson will receive a base salary of at least \$540,225 per year and annual incentive bonuses based upon his performance and the Company's attainment of designated performance goals. If Mr. Robinson's employment is terminated without cause, or if he resigns for specified reasons, such as

- o a change in positions, duties and responsibilities without consent,
- o a reduction in salary or benefits, or
- o certain events occurring upon a change in control of the

Company,

he will be entitled to a severance payment equal to 24 months of base salary (at the rate in effect for him at the time of such termination), and all of his outstanding options will (except under certain limited circumstances) vest and become exercisable for all the option shares on an accelerated basis in connection with his termination of employment, including a termination following a change in control of the Company.

In September 1996, the Company entered into an employment agreement with Dr. Negro-Vilar pursuant to which he is employed as Senior Vice President, Research and Chief Scientific Officer for an unspecified term. The agreement provides that Dr. Negro-Vilar is an at-will employee. In connection with the agreement, the Company loaned Dr. Negro-Vilar the principal sum of \$150,000 with an interest rate of 6.6% per annum. The

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principal balance, together with accrued interest, will be forgiven in five successive equal annual installments upon his completion of each year of employment with the Company over the five-year period measured from November 1996. Upon his termination of employment, the entire unpaid balance will become immediately due and payable. In addition, Dr. Negro-Vilar was granted an option to purchase 100,000 shares of the Common Stock at an exercise price of \$12.13 per share. The shares will vest in a series of four successive equal annual installments upon his completion of each year of employment with the Company over the four-year period measured from the grant date. In the event his employment is terminated without cause, he will be entitled to 12 months of salary continuation payments, and all of his outstanding options will immediately vest and become exercisable for all of the option shares.

In December 1996, the Company entered into an employment agreement with Dr. Reich pursuant to which he is employed as Senior Vice President, Clinical Research. In connection with the agreement, the Company loaned Dr. Reich the principal sum of \$100,000 with an interest rate of 6.36% per annum. The principal balance, together with accrued interest, will be forgiven in five successive equal annual installments upon his completion of each year of employment with the Company over the five-year period measured from May 1996. Upon his termination of employment, the entire unpaid balance will become immediately due and payable. Dr. Reich was also granted an option to purchase 90,000 shares of Common Stock at an exercise price of \$8.50 per share. If Dr. Reich's employment is terminated by the Company without cause, he will be entitled to six months of salary continuation payments.

In September 1992, Ligand entered into an employment agreement with Paul V. Maier pursuant to which Mr. Maier is employed as Senior Vice President and Chief Financial Officer. In connection with the agreement, Ligand loaned Mr. Maier \$75,000 which, with the accrued interest, was forgiven in equal annual installments over five years. In connection with the agreement, Mr. Maier was granted an option to purchase 81,188 shares of Ligand Common Stock, which shares vest over four years, at an average price of \$8.87 per share. If Mr. Maier's employment is terminated by the Company without cause, Ligand has agreed to pay him six months base salary.

The Company has entered into an agreement with each employee holding one or more outstanding options under the 1992 Plan (including each of the Named Executive Officers other than Mr. Robinson), pursuant to which such options will automatically vest on an accelerated basis in the event that such individual's employment is terminated following

- o an acquisition of the Company by merger or asset sale or
- o a change in control of the Company effected through a successful tender offer for more than 50% of the Company's outstanding Common Stock or through a change in the majority of the Board as a result of one or more contested elections for Board membership.

As indicated above, all of Mr. Robinson's outstanding options will (except under certain limited circumstances) vest and become exercisable for all the option shares on an accelerated basis in connection with his termination of employment,

including a termination following a change in control of the Company.

Effective January 5, 1998, the Company entered into severance agreements with each of the Named Executive Officers, other than Mr. Robinson, and certain other executive officers pursuant to which such individuals will, in the event their employment is involuntarily terminated in connection with a change in control of the Company, receive a severance benefit equal to

- o one times the annual rate of base salary in effect for such officer at the time of involuntary termination plus

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- o one times the average of bonuses paid to such officer for services rendered in the two fiscal years immediately preceding the fiscal year of involuntary termination. The severance amount will be payable in 12 monthly installments following the officer's termination of employment.

The following Board Compensation Committee Report on Executive Compensation and Performance Graph should be not be considered to be part of this proxy statement and any current or future cross references to this proxy statement in filings with the SEC under either the Securities Act or the Securities Exchange Act shall not include the Board Compensation Committee Report on Executive Compensation or the Performance Graph reproduced below.

BOARD COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The following is the report delivered by the Compensation Committee of the Company's Board of Directors with respect to the principal factors considered by such Committee in determining the compensation of the Company's executive officers.

As members of the Compensation Committee of the Board of Directors, it is our duty to set the base salary of the Company's executive officers and to administer the Company's 1992 Stock Option/Stock Issuance Plan under which grants may be made to them and other key employees. In addition, we approve the individual bonus programs to be effective for the executive officers each fiscal year.

GENERAL COMPENSATION POLICY. Our fundamental policy is to offer the Company's executive officers competitive compensation opportunities based upon their contribution to the financial success of the Company and their personal performance. It is our objective to have a substantial portion of each officer's compensation contingent upon the Company's performance as well as upon his or her own level of performance. Accordingly, each executive officer's compensation package is comprised of three elements:

- o base salary which reflects individual performance and is designed primarily to be competitive with salary levels in the industry,
- o annual variable performance awards payable in cash and tied to the achievement of financial performance goals established by us, and
- o long-term stock-based incentive awards which strengthen the mutuality of interests between the executive officers and the Company's stockholders.

As an officer's level of responsibility increases, it is our intent to have a greater portion of his or her total compensation be dependent upon the Company's performance and stock price appreciation rather than base salary.

FACTORS. The principal factors which we considered in establishing the components of each executive officer's compensation package for the 1998 fiscal year are summarized below. We may in our discretion apply entirely different factors, particularly different measures of financial performance, in setting executive compensation for future fiscal years, but all compensation decisions will be designed to further the general compensation

policy indicated above.

BASE SALARY. The base salary for each officer is set on the basis of:

- o industry experience, knowledge and qualifications,
- o the salary levels in effect for comparable positions within the Company's principal industry marketplace competitors and
- o internal comparability considerations.

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We did not rely upon any specific compensation surveys for comparative compensation purposes. Instead, we made our decisions as to the appropriate market level of base salary for each executive officer on the basis of our understanding of the salary levels in effect for similar positions at those companies with which the Company competes for executive talent. We estimate that the salary levels of the Company's executive officers range from the 50th percentile to the 90th percentile of the salary levels in effect for comparable positions at those other companies.

ANNUAL INCENTIVE COMPENSATION. Annual bonuses are earned by each executive officer solely on the basis of the Company's achievement of the corporate performance targets we establish at the start of the fiscal year. For fiscal year 1998, the performance targets were based upon individual goals supporting key corporate objectives, and each executive will be evaluated in relation to his or her contribution to the attainment of those targets. Accordingly, this element of executive compensation is earned solely on the basis of the Company's success in achieving the corporate goals. This element of compensation has not been determined as of the date of the mailing of this proxy.

LONG-TERM INCENTIVE COMPENSATION. During 1998, we approved the grant of stock options to certain executive officers under the 1992 Plan. The grants are designed to align the interests of each executive officer with those of the stockholders and provide each individual with a significant incentive to manage the Company from the perspective of an owner with an equity stake in the business. The number of shares subject to each option grant was based on the officer's level of responsibilities and relative position in the Company. However, we do not adhere to any specific set of guidelines and determine the size of each grant as circumstances warrant.

Each grant allows the officer to acquire shares of Common Stock the market price on the grant date over a specified period of time, up to 10 years. Accordingly, the option will provide a return to the executive officer only if the market price of the shares appreciates over the option term.

CEO COMPENSATION. In setting the compensation payable to the Company's Chief Executive Officer, Mr. Robinson, we have sought to be competitive with other companies in the industry, while at the same time tying a significant percentage of such compensation to the Company's performance and stock price appreciation. As described above under "Employment Contracts and Change in Control Agreements," an employment agreement effective May 1996 between the Company and Mr. Robinson sets forth the terms and conditions, including compensation, governing Mr. Robinson's employment.

We established Mr. Robinson's base salary upon our evaluation of his personal performance and our objective to have his base salary keep pace with salaries being paid to similarly situated chief executive officers. We estimate that his base salary is at the 75th to 90th percentile of the salary levels paid to such other chief executive officers.

The remaining components of Mr. Robinson's 1998 fiscal year compensation, however, were entirely dependent upon financial performance and provided no dollar guarantees. The cash bonus paid to him for the 1998 fiscal year will be based entirely on the Company's attainment of certain objectives based on key corporate goals. This cash bonus has not been determined as of the date of the mailing of this proxy. It is our objective to have an increasing

percentage of Mr. Robinson's total compensation each year tied to the attainment of performance targets and stock price appreciation on his option shares.

We conclude our report with the acknowledgement that no member of the Compensation Committee is a current officer or employee of the Company or any of its subsidiaries.

COMPENSATION COMMITTEE

HENRY F. BLISSENBACH
VICTORIA R. FASH
JOHN GROOM

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PERFORMANCE GRAPH

The graph below shows the five-year cumulative total stockholder return assuming the investment of \$100 and the reinvestment of dividends, although dividends have not been declared on the common stock, and is based on the returns of the component companies weighted according to their market capitalizations as of the end of each monthly period for which returns are indicated in each of the common stock, and compares total stockholder returns of common stock, the Nasdaq Composite Index, in CBOE Biotech Index, and the Nasdaq Pharmaceutical Index. The Nasdaq Composite Index tracks the aggregate price performance of equity securities of companies traded on the Nasdaq. The common stock is traded on the Nasdaq National Market. The Nasdaq Pharmaceutical Index tracks approximately 25 domestic stocks in the biotechnology sector.

On November 24, 1994, each outstanding share of the Class A common stock was automatically converted into 1.33 shares of common stock, which is currently traded in the over-the-counter market. The stockholder return of Common Stock shown below for the period prior to November 24, 1994, has been adjusted for such automatic conversion by dividing the share price in those periods by 1.33.

The stockholder return shown on the graph below is not necessarily indicative of future performance and the Company will not make or endorse any predictions as to future stockholder returns.

[PERFORMANCE GRAPH]

<TABLE>

<CAPTION>

	Ligand	NASDAQ Composite Index	NASDAQ Pharmaceutical Index
<S>	<C>	<C>	<C>
12/31/93	100	100	100
12/31/94	70.213	97.752	75.262
12/31/95	91.489	138.256	138.04
12/31/96	126.596	170.015	138.469
12/31/97	109.574	208.58	142.976
12/31/98	98.936	293.209	183.019

</TABLE>

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CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Certain holders of the common stock, and the common Stock issuable upon exercise of warrants, are entitled to certain registration rights with respect to such stock.

The bylaws provide that the Company will indemnify its directors and executive officers and may indemnify its other officers, employees and other

agents to the fullest extent permitted by the Delaware General Corporation Law (the "Delaware Law"). The Company is also empowered under its Bylaws to enter into indemnification contracts with its directors and officers and to purchase insurance on behalf of any person whom it is required or permitted to indemnify. Pursuant to this provision, the Company has entered into indemnity agreements with each of its directors and officers.

In addition, the company's certificate of incorporation provides that to the fullest extent permitted by Delaware Law, the Company's directors will not be liable for monetary damages for breach of the directors' fiduciary duty of care to the Company and its stockholders. This provision in the Certificate of Incorporation does not eliminate the duty of care, and in appropriate circumstances equitable remedies such as an injunction or other forms of nonmonetary relief would remain available under Delaware Law. Each director will continue to be subject to liability for breach of the director's duty of loyalty to the Company, for acts or omissions not in good faith or involving intentional misconduct or knowing violations of law, for acts or omissions that the director believes to be contrary to the best interests of the Company or its stockholders, for any transaction from which the director derived an improper personal benefit, for acts or omissions involving a reckless disregard for the director's duty to the Company or its stockholders when the director was aware or should have been aware of a risk of serious injury to the Company or its stockholders, for acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to the Company or its stockholders, for improper transactions between the director and the Company and for improper distributions to stockholders and loans to directors and officers. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act requires the Company's officers and directors, and persons who own more than 10% of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the SEC and the Nasdaq. Officers, directors and greater than 10% shareholders are required by SEC regulation to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on review of the copies of such forms furnished to the Company, or written representations that no Forms 5 were required, the Company believes that, during the period from January 1998 through December 1998, all Section 16(a) filing requirements applicable to its officers, directors and greater than 10% beneficial owners were satisfied, with the exception of George M. Gill for which two transactions were inadvertently not filed on a timely basis.

STOCKHOLDER PROPOSALS FOR 2000 PROXY STATEMENT

Under the present rules of the SEC, the deadline for stockholders to submit proposals to be considered for inclusion in the Company's Proxy Statement for next year's Annual Meeting of Stockholders is expected to be December 18, 1999 (120 days prior to April 16, 2000). Such proposals may be included in next year's Proxy Statement if they comply with certain rules and regulations promulgated by the SEC and the procedure set forth in the Bylaws of the Company, which requires notice to be delivered or mailed and received at the Company's executive offices on or before December 18, 1999.

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In addition, the proxy solicited by the Board of Directors for the year 2000 Annual Meeting of Stockholders will confer discretionary authority to rate on any stockholder proposal presented at that meeting, unless the Company receives notice of such proposal no later than December 18, 1999.

ANNUAL REPORT

A copy of the Annual Report of the Company for the 1998 Fiscal

Year has been mailed concurrently with this Proxy Statement to all stockholders entitled to notice of and to vote at the annual meeting. The Annual Report is not incorporated into this Proxy Statement and is not considered proxy solicitation material.

FORM 10-K

THE COMPANY WILL MAIL WITHOUT CHARGE, UPON WRITTEN REQUEST, A COPY OF THE ANNUAL REPORT ON FORM 10-K, INCLUDING THE FINANCIAL STATEMENTS, SCHEDULES AND LIST OF EXHIBITS. REQUESTS SHOULD BE SENT TO INVESTOR RELATIONS.

OTHER BUSINESS

The Board of Directors knows of no other business that will be presented for consideration at the Annual Meeting. If other matters are properly brought before the Annual Meeting, however, it is the intention of the persons named in the accompanying proxy to vote the shares represented thereby on such matters in accordance with their best judgment.

Dated: April 16, 1999 William L. Respass
Secretary

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LIGAND PHARMACEUTICALS INCORPORATED

1992 STOCK OPTION/STOCK ISSUANCE PLAN AS AMENDED THROUGH MAY 20, 1999 ARTICLE ONE GENERAL

I. PURPOSE OF THE PLAN

A. This 1992 Stock Option/Stock Issuance Plan ("Plan") is intended to promote the interests of Ligand Pharmaceuticals Incorporated, a Delaware corporation (the "Corporation"), by providing (i) key employees (including officers) of the Corporation (or its parent or subsidiary corporations) who are responsible for the management, growth and financial success of the Corporation (or its parent or subsidiary corporations), (ii) non-employee members of the Board of Directors and (iii) consultants and other independent contractors who provide valuable services to the Corporation (or its parent or subsidiary corporations) with the opportunity to acquire a proprietary interest, or otherwise increase their proprietary interest in the Corporation as an incentive for them to remain in the service of the Corporation (or its parent or subsidiary corporations).

B. The Plan became effective on November 17, 1992, the date on which the shares of the Corporation's common stock were first registered under Section 12(g) of the Securities Exchange Act of 1934, as amended (the "1934 Act"). Such date is hereby designated as the "Effective Date" of this Plan.

C. This Plan shall serve as the successor to the Corporation's Restricted Stock Purchase Plan (the "Stock Plan") and 1988 Stock Option Plan (the "Option Plan") (such Plans are hereinafter referred to as the "Predecessor Plans"), and no further option grants or share issuances shall be made under the Predecessor Plans from and after the Effective Date. Each outstanding option or share issuance under the Predecessor Plans immediately prior to the Effective Date were incorporated into this Plan and are to be treated as outstanding options or stock issuances under this Plan. However, each such option or share issuance shall continue to be governed solely by the terms and conditions of the instrument evidencing such grant or issuance, and, except as otherwise expressly provided herein, no provision of this Plan shall affect or otherwise modify the rights or obligations of the holders of such incorporated options or shares with respect to their acquisition of shares of the Corporation's common stock or otherwise modify the rights or obligations of the holders of such options or shares.

D. For purposes of this Plan, the following provisions shall be applicable in determining the parent and subsidiary corporations of the

Corporation:

Any corporation (other than the Corporation) in an unbroken chain of corporations ending with the Corporation shall be considered to be a PARENT of the Corporation, provided each such corporation in the unbroken chain (other than the Corporation) owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

Each corporation (other than the Corporation) in an unbroken chain of corporations beginning with the Corporation shall be considered to be a SUBSIDIARY of the Corporation, provided each such corporation (other than the last corporation) in the unbroken chain owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

II. STRUCTURE OF THE PLAN

A. The Plan shall be divided into four separate components: the Discretionary Option Grant Program specified in Article Two, the Automatic Option Grant Program specified in Article Three, the Stock Issuance Program specified in Article Four, and the Director Fee Option Grant Program specified in Article Five. Under the Discretionary Option Grant Program, eligible individuals may be granted options to purchase shares of the Corporation's common stock at not less than 85% of the Fair Market Value (as defined below) of such shares on the grant date. Under the Automatic Option Grant Program, eligible non-employee members of the Board of Directors will be granted options to purchase shares of the Corporation's common stock at 100% of the Fair Market Value of such shares on the grant date. Subject to the limitations contained in this Plan, the Stock Issuance Program shall allow eligible individuals to purchase shares of the Corporation's common stock at discounts from the Fair Market Value of such shares of up to 15%. Such shares may be issued as fully-vested shares or as shares to vest over time. Under the Director Fee Option Grant Program, non-employee Board members may elect to apply all or a portion of the fee otherwise payable in cash to him or her each year to the acquisition of a special option grant.

B. The provisions of Articles One and Six of the Plan shall apply to both the Discretionary Option Grant Program and the Stock Issuance Program and shall accordingly govern the interests of all individuals in the Plan.

C. With respect to persons subject to Section 16 of the Securities Exchange Act of 1934 ("1934 Act"), transactions under the Plan are intended to comply with all applicable conditions of Rule 16b-3 or its successors under the 1934 Act. To the extent any provision of the Plan or action by the Committee (as defined below) fails to so comply, it shall be deemed null and void, to the extent permitted by law and deemed advisable by the Committee.

III. ADMINISTRATION OF THE PLAN

A. Plan Administrator. The Board shall appoint a committee of two (2) or more non-employee Board members (the "Primary Committee") to have sole and exclusive authority to administer the Discretionary Option Grant and Stock Issuance Programs to administer the Plan with respect to officers and directors subject to Section 16 of the 1934 Act ("Section 16 Insiders").

B. Committees. Administration of the Discretionary Option Grant and Stock Issuance Programs with respect to all other persons eligible to participate in those programs may, in the Board's discretion, be vested in the Primary Committee or a committee of two (2) or more Board members appointed by the Board (the "Secondary Committee"), or the Board may retain the power to administer those programs with respect to all such persons.

C. Members of Committees. Members of the Primary Committee or any Secondary Committee shall serve for such period of time as the Board may determine and may be removed by the Board at any time. The Board may also at any time terminate the functions of any Secondary Committee and assume all powers and authority previously delegated to such committee.

D. Service as Committee Members. Service on the Primary Committee or the Secondary Committee shall constitute service as a Board member, and members of each such committee shall accordingly be entitled to full indemnification and reimbursement as Board members for their service on such committee. No member of the Primary Committee or the Secondary Committee shall be liable for any act or omission made in good faith with respect to the Plan or any option grants or stock issuances under the Plan.

E. Authority. Each Plan Administrator shall, within the scope of its administrative functions under the Plan, have full power and authority (subject to the express provisions of the Plan) to establish such rules and regulations as it may deem appropriate for the proper administration of the Discretionary Option Grant Program and Stock Issuance Programs and to make such determinations under, and issue such interpretations of, such programs and any outstanding option grants or stock issuances as it may deem necessary or advisable. Decisions of each Plan Administrator shall be final and binding on all parties who have an interest in the Discretionary Option Grant Program and Stock Issuance Program or any outstanding option or stock issuance thereunder.

F. Restriction on Discretion. The administration of the Automatic Option Grant Program under Article Three and the Director Fee Option Grant Program under Article Five shall be self executing in accordance with the terms and provisions of those programs, and no Plan Administrator shall exercise any discretionary functions with respect to such programs.

IV. OPTION GRANTS AND STOCK ISSUANCES

A. The persons eligible to receive stock issuances under the Stock Issuance Program ("Participant") and/or option grants pursuant to the Discretionary Option Grant Program ("Optionee") are as follows:

(i) officers and other key employees of the Corporation (or its parent or subsidiary corporations) who render services which contribute to the management, growth and financial success of the Corporation (or its parent or subsidiary corporations);

(ii) non-employee members of the Board of Directors; and

(iii) those consultants or other independent contractors who provide valuable services to the Corporation (or its parent or subsidiary corporations).

B. Only non-employee members of the Board shall be eligible to participate in the Automatic Option Grant Program and the Director Fee Option Grant Program.

C. Each Plan Administrator shall have full authority to determine, (i) with respect to the option grants made under the Discretionary Option Grant Program, which eligible individuals are to receive option grants, the time or times when such grants are to be made, the number of shares to be covered by each such grant, whether the granted option is to be an incentive stock option ("Incentive Option") which satisfies the requirements of Section 422 of the Internal Revenue Code or a non-statutory option not intended to meet such requirements, the time or times at which each granted option is to become exercisable and the maximum term for which the option may remain outstanding and (ii) with respect to stock issuances under the Stock Issuance Program, the number of shares to be issued to each Participant, the vesting schedule (if any) to be applicable to the issued shares, and the consideration to be paid by the individual for such shares.

D. The Plan Administrator shall have the absolute discretion either to grant options in accordance with Article Two of the Plan or to effect stock issuances in accordance with Article Four of the Plan. The Plan Administrator will have no discretion with respect to the grant of options under

the Automatic Option Grant Program and the Director Fee Option Grant Program.

V. STOCK SUBJECT TO THE PLAN

A. Shares of the Corporation's Common Stock (hereinafter referred to as "Common Stock") shall be available for issuance under the Plan and shall be drawn from either the Corporation's authorized but unissued shares of Common Stock or from reacquired shares of Common Stock, including shares repurchased by the Corporation on the open market. The maximum number of shares issuable under the Plan is 9,073,457 shares of Common Stock. Such share reserve includes an increase of 985,000 shares authorized by the Board effective as of March 13, 1999, subject to stockholder approval at the 1999 Annual Meeting.

B. No one person participating in the Plan may receive options, separately exercisable stock appreciation rights and direct stock issuances for more than 1,000,000 shares of Common Stock in the aggregate over the term of the Plan.

C. Should one or more outstanding options under this Plan (including outstanding options under the Predecessor Plans incorporated into this Plan) expire or terminate for any reason prior to exercise in full (including any option cancelled in accordance with the cancellation-regrant provisions of Section IV of Article Two of the Plan), then the shares subject to the portion of each option not so exercised shall be available for subsequent option grant or share issuance under this Plan. Unvested shares issued under the Plan and subsequently cancelled or repurchased by the Corporation, at the original exercise or issue price paid per share, pursuant to the Corporation's repurchase rights under the Plan shall be added back to the number of shares of Common Stock reserved for issuance under the Plan and shall accordingly be available for reissuance through one or more subsequent option grants or direct stock issuances under the Plan. However, shares subject to any option or portion thereof surrendered or cancelled in accordance with Section V of Article Two shall reduce on a share-for-share basis the number of shares of the same class of Common Stock available for subsequent option grant or stock issuance under the Plan. In addition, should the exercise price of an outstanding option under the Plan be paid with shares of Common Stock or should shares of Common Stock otherwise issuable under the Plan be withheld by the Corporation in satisfaction of the withholding taxes incurred in connection with the exercise of an outstanding option under the Plan, then the number of shares of Common Stock of the same class available for issuance under the Plan shall be reduced by the gross number of shares for which the option is exercised, and not by the net number of shares of Common Stock actually issued to the option holder.

D. In the event any change is made to the Common Stock issuable under the Plan by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares, conversion or other change affecting the outstanding Common Stock, or any class of Common Stock as a class, without the Corporation's receipt of consideration, then appropriate adjustments shall be made to (i) the number and/or class of shares issuable under the Plan, (ii) the number and/or class of securities for which any one person may be granted stock options, separately exercisable stock appreciation rights and direct stock issuances over the term of the Plan, and (iii) the number and/or class of shares and price per share in effect under each outstanding option under this Plan (including outstanding options incorporated into this Plan from the Predecessor Plans). Such adjustments to the outstanding options are to be effected in a manner which shall preclude the enlargement or dilution of rights and benefits under such options. The adjustments determined by the Plan Administrator shall be final, binding and conclusive.

E. Common Stock issuable under the Discretionary Option Grant Program or the Stock Issuance Program may be subject to such restrictions on transfer, repurchase rights or other restrictions as determined by the Plan Administrator.

VI. DETERMINATION OF FAIR MARKET VALUE

The "Fair Market Value" of a share of Common Stock shall be determined in accordance with the following provisions:

- If shares of Common Stock to be valued are not at the

time listed or admitted to trading on any national stock exchange but is traded on the Nasdaq National Market, the Fair Market Value shall be the closing selling price per share of a share of that class on the date in question, as such price is reported by the National Association of Securities Dealers on the Nasdaq National Market. If there is no reported closing selling price for the series on the date in question, then the closing selling price on the last preceding date for which such quotation exists shall be determinative of Fair Market Value.

- If shares of the class of common stock to be valued are at the time listed or admitted to trading on any national stock exchange, then the Fair Market Value of a share of that class shall be the closing selling price per share on the date in question on the stock exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange. If there is no reported sale of a share of the class on such exchange on the date in question, then the Fair Market Value shall be the closing selling price on the exchange on the last preceding date for which such quotation exists.

ARTICLE TWO DISCRETIONARY OPTION GRANT PROGRAM

I. TERMS AND CONDITIONS OF OPTIONS

Options granted pursuant to this Article Two shall be authorized by action of the Plan Administrator and, at the Plan Administrator's discretion, may be either Incentive Options or Non-Statutory Options. Individuals who are not Employees of the Corporation or its parent or subsidiary corporations may only be granted Non-Statutory Options. Each granted option shall be evidenced by one or more instruments in the form approved by the Plan Administrator; provided, however, that each such instrument shall comply with the terms and conditions specified below. Each instrument evidencing an Incentive Option shall, in addition, be subject to the applicable provisions of Section II of this Article Two.

A. Option Price.

(1) The option price per share shall be fixed by the Plan Administrator. In no event, however, shall the price for any share be less than eighty-five percent (85%) of the Fair Market Value of that share on the date of the option grant.

(2) The option price shall become immediately due upon exercise of the option and, subject to the provisions of Article Six, Section II and the instrument evidencing the grant, shall be payable in one of the following alternative forms specified below:

- full payment in cash or check drawn to the Corporation's order;

- full payment in shares of Common Stock held for at least six (6) months and valued at Fair Market Value on the Exercise Date;

- full payment in a combination of shares of Common Stock held for at least six (6) months and valued at Fair Market Value on the Exercise Date and cash or check; or

- full payment through a broker-dealer sale and remittance procedure pursuant to which the Optionee (I) shall provide irrevocable instructions to a designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate option price payable for the purchased shares plus all applicable Federal and State income and employment taxes required to be withheld by the Corporation in connection with such purchase and (II) shall provide written directives to the Corporation to deliver the certificates for the purchased shares directly to

such brokerage firm in order to complete the sale transaction.

For purposes of this subparagraph (2), the Exercise Date shall be the date on which written notice of the option exercise is delivered to the Corporation. Except to the extent the sale and remittance procedure is utilized in connection with the exercise of the option, payment of the option price for the purchased shares must accompany such notice.

B. Term and Exercise of Options. Each option granted under this Article Two shall be exercisable at such time or times and during such period as is determined by the Plan Administrator and set forth in the stock option agreement evidencing the grant. No such option, however, shall have a maximum term in excess of ten (10) years from the grant date.

C. Termination of Service.

(1) Except to the extent otherwise provided pursuant to Section VI of this Article Two, the following provisions shall govern the exercise period applicable to any outstanding options under this Article Two which are held by the Optionee at the time of his or her cessation of Service or death.

- Should an Optionee's Service terminate for any reason (including death or permanent disability as defined in Section 22(e)(3) of the Internal Revenue Code) while the holder of one or more outstanding options under the Plan, then none of those options shall (except to the extent otherwise provided pursuant to Section VI of this Article Two) remain exercisable beyond the limited post-Service period designated by the Plan Administrator at the time of the option grant and set forth in the option agreement.

- Any option granted to an Optionee under this Article Two and exercisable in whole or in part on the date of the Optionee's death may be subsequently exercised, by the personal representative of the Optionee's estate or by the person or persons to whom the option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution, provided and only if such exercise occurs prior to the earlier of (i) the third anniversary of the date of the Optionee's death or (ii) the specified expiration date of the option term. Upon the occurrence of the earlier event, the option shall terminate and cease to be exercisable.

- Under no circumstances, however, shall any such option be exercisable after the specified expiration date of the option term.

- During the limited post-Service period of exercisability, the option may not be exercised in the aggregate for more than the number of shares for which the option is exercisable on the date the Optionee's Service terminates. Upon the expiration of such limited exercise period or (if earlier) upon the expiration of the option term, the option shall terminate and cease to be exercisable.

(2) The Plan Administrator shall have complete discretion, exercisable either at the time the option is granted or at any time while the option remains outstanding:

- to permit one or more options held by the Optionee under this Article Two to be exercised, during the limited period of post-Service exercisability provided under subparagraph (1) above, not only with respect to the number of shares for which each such option is exercisable at the time of the Optionee's cessation of Service but also with respect to one or more subsequent installments of purchasable shares for which the option would otherwise have become exercisable had such cessation of Service not occurred, and

- to extend the period of time for which any option granted under this Article Two is to remain exercisable following the Optionee's

cessation of Service or death from the limited period in effect under subparagraph (1) above to such greater period of time as the Plan Administrator shall deem appropriate; provided, however, that in no event shall such option be exercisable after the specified expiration date of the option term.

(3) For purposes of the foregoing provisions of this Section I.C (and for all other purposes under the Plan):

- The Optionee shall (except to the extent otherwise specifically provided in the applicable option or issuance agreement) be deemed to remain in the SERVICE of the Corporation for so long as such individual renders services on a periodic basis to the Corporation (or any parent or subsidiary corporation) in the capacity of an Employee, a non-employee member of the Board or an independent consultant or advisor.

- The Optionee shall be considered to be an EMPLOYEE for so long as he or she remains in the employ of the Corporation or one or more parent or subsidiary corporations, subject to the control and direction of the employer entity not only as to the work to be performed but also as to the manner and method of performance.

D. Stockholder Rights. An Optionee shall have no stockholder rights with respect to any shares covered by the option until such individual shall have exercised the option, paid the option price for the purchased shares and been issued a stock certificate for such shares.

E. Repurchase Rights. The Plan Administrator shall have the discretion to grant options which are exercisable for unvested shares of Common Stock. Should the Optionee cease Service while holding such unvested shares, the Corporation shall have the right to repurchase, at the exercise price paid per share, any or all of those unvested shares. The terms upon which such repurchase right shall be exercisable (including the period and procedure for exercise and the appropriate vesting schedule for the purchased shares) shall be established by the Plan Administrator and set forth in the document evidencing such repurchase right.

F. Limited Transferability of Options. During the lifetime of the Optionee, Incentive Options shall be exercisable only by the Optionee and shall not be assignable or transferable other than by will or by the laws of descent and distribution following the Optionee's death. Non-Statutory Options may, to the extent permitted by the Plan Administrator, be assigned in whole or in part during the Optionee's lifetime to one or more members of the Optionee's immediate family or to a trust established exclusively for one or more such family members. The terms applicable to the assigned portion shall be the same as those in effect for the option immediately prior to such assignment and shall be set forth in such documents issued to the assignee as the Plan Administrator may deem appropriate.

II. INCENTIVE OPTIONS

The terms and conditions specified below shall be applicable to all Incentive Options granted under this Article Two. Incentive Options may only be granted to individuals who are Employees of the Corporation. Options which are specifically designated as "non-statutory" options when issued under the Plan shall not be subject to such terms and conditions.

A. Option Price. The option price per share of any share of Common Stock subject to an Incentive Option shall in no event be less than one hundred percent (100%) of the Fair Market Value of such share of Common Stock on the grant date.

B. Dollar Limitation. The aggregate Fair Market Value (determined as of the respective date or dates of grant) of the Common Stock for which one or more options granted to any Employee under this Plan (or any other option plan of the Corporation or its parent or subsidiary corporations) may for the first time become exercisable as incentive stock options under the Federal tax laws during any one calendar year shall not exceed the sum of One Hundred Thousand Dollars (\$100,000). To the extent the Employee holds two or more such options which become exercisable for the first time in the same calendar year,

the foregoing limitation on the exercisability of such options as Incentive Options under the Federal tax laws shall be applied on the basis of the order in which such options are granted.

C. 10% Stockholder. If any Employee to whom an Incentive Option is granted is a 10% Stockholder, then the exercise price per share shall not be less than one hundred ten percent (110%) of the Fair Market Value per share of the Common Stock on the option grant date, and the option term shall not exceed five (5) years measured from the option grant date.

Except as modified by the preceding provisions of this Section II, the provisions of Articles One, Two and Six of the Plan shall apply to all Incentive Options granted hereunder.

III. CORPORATE TRANSACTIONS

A. For purposes of this Section III, a "Corporate Transaction" shall mean any one of the following stockholder-approved transactions:

(i) a merger or consolidation in which the Corporation is not the surviving entity, except for a transaction the principal purpose of which is to change the State of the Corporation's incorporation,

(ii) the sale, transfer or other disposition of all or substantially all of the assets of the Corporation in liquidation or dissolution of the Corporation, or

(iii) any reverse merger in which the Corporation is the surviving entity but in which securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities are transferred to holders different from those who held such securities immediately prior to such merger.

B. Each outstanding option which is assumed in connection with a Corporate Transaction or is otherwise to continue in effect shall be appropriately adjusted, immediately after such Corporate Transaction, to apply and pertain to the number and class of securities which would be issuable, in consummation of such Corporate Transaction, to an actual holder of the same number of shares of Common Stock as are subject to such option immediately prior to such Corporate Transaction, and appropriate adjustments shall also be made to the option price payable per share, provided the aggregate option price payable for such securities shall remain the same. Appropriate adjustments shall also be made to the class and number of securities available for issuance under the Plan on both an aggregate and per participant basis following the consummation of such Corporate Transaction.

C. The grant of options under this Article Two shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

IV. CANCELLATION AND REGRANT OF OPTIONS

The Plan Administrator shall have the authority to effect, at any time and from time to time, with the consent of the affected Optionees, the cancellation of any or all outstanding options under this Article Two (including outstanding options under the Predecessor Plans incorporated into this Plan) and to grant in substitution new options under this Article Two covering the same or different numbers of shares of Common Stock but having an option price for each share which is not less than (i) eighty-five percent (85%) of the Fair Market Value of such share on the new grant date or (ii) one hundred percent (100%) of such Fair Market Value in the case of an Incentive Option.

V. STOCK APPRECIATION RIGHTS

A. Provided and only if the Plan Administrator determines in its discretion to implement the stock appreciation right provisions of this Section

V, one or more Optionees under the Discretionary Option Grant Program may be granted the right, exercisable upon such terms and conditions as the Plan Administrator may establish, to surrender all or part of an unexercised option under this Article Two in exchange for a distribution from the Corporation in an amount equal to the excess of (i) the Fair Market Value (on the option surrender date) of the number of shares in which the Optionee is at the time vested under the surrendered option (or surrendered portion thereof) over (ii) the aggregate option price payable for such vested shares.

B. No surrender of an option shall be effective hereunder unless it is approved by the Plan Administrator. If the surrender is so approved, then the distribution to which the Optionee shall accordingly become entitled under this Section V may be made in shares of any class of Common Stock valued at Fair Market Value on the option surrender date, in cash, or partly in shares and partly in cash, as the Plan Administrator shall in its sole discretion deem appropriate.

C. If the surrender of an option is rejected by the Plan Administrator, then the Optionee shall retain whatever rights the Optionee had under the surrendered option (or surrendered portion thereof) on the option surrender date and may exercise such rights at any time prior to the later of (i) five (5) business days after the receipt of the rejection notice or (ii) the last day on which the option is otherwise exercisable in accordance with the terms of the instrument evidencing such option, but in no event may such rights be exercised more than ten (10) years after the date of the option grant.

D. One or more officers of the Corporation subject to the short-swing profit restrictions of the Federal securities laws may, in the Plan Administrator's sole discretion, be granted limited stock appreciation rights in tandem with their outstanding options under this Article Two. Upon the occurrence of a Hostile Take-Over effected at any time when the Corporation's outstanding Common Stock is registered under Section 12(g) of the 1934 Act, each outstanding option with such a limited stock appreciation right shall automatically be cancelled, to the extent such option is at the time exercisable for fully-vested shares of Common Stock. The Optionee shall in return be entitled to a cash distribution from the Corporation in an amount equal to the excess of (i) the Take-Over Price of the vested shares of Common Stock at the time subject to the cancelled option (or cancelled portion of such option) over (ii) the aggregate exercise price payable for such shares. The cash distribution payable upon such cancellation shall be made within five (5) days following the consummation of the Hostile Take-Over. The Plan Administrator shall pre-approve, at the time the limited right is granted, the subsequent exercise of that right in accordance with the terms of the grant and the provisions of this Section V.D. No additional approval of the Plan Administrator or the Board shall be required at the time of the actual option cancellation and cash distribution. The balance of the option (if any) shall continue to remain outstanding and exercisable in accordance with the terms of the instrument evidencing such grant.

E. For purposes of Section V.D, the following definitions shall be in effect:

A HOSTILE TAKE-OVER shall be deemed to occur in the event any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 of the 1934 Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders which the Board does not recommend such stockholders to accept.

The TAKE-OVER PRICE per share shall be deemed to be equal to the greater of (a) the Fair Market Value per share on the date of cancellation, as determined pursuant to the valuation provisions of Section VI of Article One, or (b) the highest reported price per share paid in effecting such Hostile Take-Over. However, if the cancelled option is an Incentive Option, the Take-Over Price shall not exceed the clause (a) price

per share.

F. The shares of Common Stock subject to any option surrendered or cancelled for an appreciation distribution pursuant to this Section V shall NOT be available for subsequent option grant under the Plan.

ARTICLE THREE AUTOMATIC OPTION GRANT PROGRAM

I. TERMS AND CONDITIONS OF AUTOMATIC OPTION GRANTS

A. Grant Dates. Option grants will be made under this Article Three on the dates specified below:

(1) Each individual who first becomes a non-employee Board member on or after the date of the 1998 Annual Meeting, whether through election by the Corporation's stockholders or appointment by the Board, shall automatically be granted, at the time of such initial election or appointment, a Non-Statutory Option to purchase 20,000 shares of Common Stock upon the terms and conditions of this Article Three, provided SUCH INDIVIDUAL HAS NOT OTHERWISE BEEN IN THE PRIOR EMPLOY OF THE CORPORATION.

(2) On the date of each Annual Stockholders Meeting, beginning with the 1998 Annual Meeting, each individual re-elected as a non-employee Board member at such Annual Meeting shall automatically be granted a Non-Statutory Option to purchase 10,000 shares of Common Stock upon the terms and conditions of this Article Three. There shall be no limit on the number of 10,000-share option grants any one non-employee Board member may receive over the period of Board service, and non-employee Board members previously in the Corporation's employ shall be entitled to one or more such annual option grants over his or her period of Board service.

B. Exercise Price. The exercise price per share of each automatic option grant made under this Article Three shall be equal to one hundred percent (100%) of the Fair Market Value per share of the Common Stock on the date of grant under this Automatic Option Grant Program.

C. Payment.

The exercise price shall be payable in one of the alternative forms specified below:

(i) full payment in cash or check drawn to the Corporation's order;

(ii) full payment in shares of Common Stock held for at least six (6) months and valued at Fair Market Value on the Exercise Date (as such term is defined below);

(iii) full payment in a combination of shares of Common Stock held for at least six (6) months and valued at Fair Market Value on the Exercise Date and cash or check; or

(iv) full payment through a broker-dealer sale and remittance procedure pursuant to which the non-employee Board member (A) shall provide irrevocable instructions to a designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate option price payable for the purchased shares plus all applicable Federal and state income taxes required to be withheld by the Corporation in connection with such purchase and (B) shall provide written directives to the Corporation to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale transaction.

For purposes of this paragraph C, the Exercise Date shall be the date on which written notice of the option exercise is delivered to the Corporation. Except to the extent the sale and remittance procedure is utilized in connection with the exercise of the option, payment of the option price for the purchased shares must accompany such notice.

D. Option Term. Each automatic grant under this Article Three shall have a term of ten (10) years measured from the automatic grant date.

E. Exercisability. Each automatic grant shall become exercisable in full one (1) year after the automatic grant date. The option shall not become exercisable for any additional option shares after the optionee has ceased for any reason to be a member of the Board.

F. Effect of Termination of Board Membership.

(1) Should the optionee cease to serve as a Board member for any reason (other than death) while holding one or more automatic option grants under this Article Three, then such optionee shall have a three (3) month period following the date of such cessation of Board service in which to exercise each such option for any or all of the shares of Common Stock for which the option was exercisable at the time of such cessation of Board service. Each such option shall immediately terminate and cease to be outstanding, at the time of such cessation of Board service, with respect to any shares for which the option is not otherwise at that time exercisable.

(2) Should the optionee die while serving as a Board member or within three (3) months after cessation of Board service, then each outstanding automatic option grant held by the optionee at the time of death may subsequently be exercised, for any or all of the shares of Common Stock for which the option was exercisable at the time of the optionee's cessation of Board service (less any option shares subsequently purchased by the optionee prior to death), by the personal representative of the optionee's estate or by the person or persons to whom the option is transferred pursuant to the optionee's will or in accordance with the laws of descent and distribution. Any such exercise must occur within thirty-six (36) months after the date of the optionee's death. However, each such automatic option grant shall immediately terminate and cease to be outstanding, at the time of the optionee's cessation of Board service, with respect to any option shares for which it is not otherwise at such time exercisable.

(3) In no event shall any automatic grant under this Article Three remain exercisable after the specified expiration date of the ten (10)-year option term. Upon the expiration of the applicable exercise period in accordance with subparagraphs (1) and (2) above or (if earlier) upon the expiration of the ten (10)-year option term, the automatic grant shall terminate and cease to be outstanding for any unexercised shares for which the option was exercisable at the time of the optionee's cessation of Board service.

G. Stockholder Rights. The holder of an automatic option grant under this Article Three shall have none of the rights of a stockholder with respect to any shares subject to such option until such individual shall have exercised the option, paid the exercise price for the purchased shares and been issued a stock certificate for such shares.

II. CORPORATE TRANSACTION

A. For purposes of this Section II, a "Corporate Transaction" shall be one or more of the following stockholder-approved transactions:

(i) a merger or consolidation in which the Corporation is not the surviving entity, except for a transaction the principal purpose of which is to change the State of the Corporation's incorporation,

(ii) the sale, transfer or disposition of all or substantially all of the assets of the Corporation in liquidation or dissolution of the Corporation, or

(iii) any reverse merger in which the Corporation is the surviving entity but in which securities possessing more than fifty

percent (50%) of the total combined voting power of the Corporation's outstanding securities are transferred to holders different from those who held such securities immediately prior to such merger.

B. In the event of any Corporate Transaction, the shares of Common Stock at the time subject to each outstanding option but not otherwise vested shall automatically vest in full so that each such option shall, immediately prior to the effective date of the Corporate Transaction, become fully exercisable for all of the shares of Common Stock at the time subject to such option and may be exercised for all or any portion of those shares as fully-vested shares of Common Stock. Immediately following the consummation of the Corporate Transaction, each automatic option grant shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof).

C. Each outstanding option which is assumed in connection with a Corporate Transaction or is otherwise to continue in effect shall be appropriately adjusted, immediately after such Corporate Transaction, to apply and pertain to the number and class of securities which would be issuable, in consummation of such Corporate Transaction, to an actual holder of the same number of shares of Common Stock as are subject to such option immediately prior to such Corporate Transaction, and appropriate adjustments shall also be made to the option price payable per share, provided the aggregate option price payable for such securities shall remain the same.

D. The grant of options under this Article Three shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

III. REMAINING TERMS

The remaining terms of each option granted under the Automatic Option Grant Program shall be the same as the terms in effect for options made under the Discretionary Option Grant Program.

ARTICLE FOUR STOCK ISSUANCE PROGRAM

I. TERMS AND CONDITIONS OF STOCK ISSUANCES

Shares of Common Stock may be issued under the Stock Issuance Program through direct and immediate purchases without any intervening stock option grants. The issued shares shall be evidenced by a Stock Issuance Agreement ("Issuance Agreement") that complies with the terms and conditions of this Article Four.

A. CONSIDERATION

(1) Shares of Common Stock drawn from the Corporation's authorized but unissued shares of Common Stock ("Newly Issued Shares") shall be issued under the Plan for one or more of the following items of consideration which the Plan Administrator may deem appropriate in each individual instance:

(i) cash or cash equivalents (such as a personal check or bank draft) paid the Corporation;

(ii) a promissory note payable to the Corporation's order in one or more installments, which may be subject to cancellation in whole or in part upon terms and conditions established by the Plan Administrator; or

(iii) past services rendered to the Corporation or any parent or subsidiary corporation.

(2) Newly Issued Shares may, in the absolute discretion of the Plan Administrator, be issued for consideration with a value less than one-hundred percent (100%) of the Fair Market Value of such shares, but in no event less than eighty-five percent (85%) of such Fair Market Value.

(3) Shares of Common Stock reacquired by the Corporation and held as treasury shares ("Treasury Shares") may be issued under this Article Four for such consideration (in whatever form) as the Plan Administrator may deem appropriate. Accordingly, such Treasury Shares may, in lieu of any cash consideration, be issued subject to such vesting requirements tied to the Participant's period of future Service or the Corporation's attainment of specified performance objectives as the Plan Administrator may establish at the time of issuance.

B. VESTING PROVISIONS

(1) Shares of Common Stock issued under this Article Four may, in the absolute discretion of the Plan Administrator, be fully and immediately vested upon issuance or may vest in one or more installments over the Participant's period of Service (as such term is defined in Section I.C.(3) of Article Two). The elements of the vesting schedule applicable to any unvested shares of Common Stock issued under the Plan, namely:

(i) the Service period to be completed by the Participant or the performance objectives to be achieved by the Corporation,

(ii) the number of installments in which the shares are to vest,

(iii) the interval or intervals (if any) which are to lapse between installments, and

(iv) the effect which death, disability or other event designated by the Plan Administrator is to have upon the vesting schedule,

shall be determined by the Plan Administrator and incorporated into the Issuance Agreement executed by the Corporation and the Participant at the time such unvested shares are issued.

(2) The Participant shall have full stockholder rights with respect to any shares of Common Stock issued to him or her under this Article Four, whether or not his or her interest in those shares is vested. Accordingly, the Participant shall have the right to vote such shares and to receive any regular cash dividends paid on such shares. Any new, additional or different shares of stock or other property (including money paid other than as a regular cash dividend) which the Participant may have the right to receive with respect to his or her unvested shares by reason of any stock dividend, stock split, reclassification of Common Stock or other similar change in the Corporation's capital structure shall be issued, subject to (i) the same vesting requirements applicable to his or her unvested shares and (ii) such escrow arrangements as the Plan Administrator shall deem appropriate.

(3) Should the Participant cease to remain in Service while holding one or more unvested shares of Common Stock under this Article Four, then those shares shall be immediately surrendered to the Corporation for cancellation, and the Participant shall have no further stockholder rights with respect to those shares. To the extent the surrendered shares were previously issued to the Participant for consideration paid in cash or cash equivalent (including the Participant's purchase-money promissory note), the Corporation shall repay to the Participant the cash consideration paid for the surrendered shares and shall cancel the principal balance of any outstanding purchase-money note of the Participant to the extent attributable to such surrendered shares. The surrendered shares may, at the Plan Administrator's discretion, be retained by the Corporation as Treasury Shares or may be retired to authorized but unissued share status.

(4) The Plan Administrator may in its discretion elect to waive the surrender and cancellation of one or more unvested shares of Common

Stock (or other assets

attributable thereto) which would otherwise occur upon the non-completion of the vesting schedule applicable to such shares. Such waiver shall result in the immediate vesting of the Participant's interest in the shares of Common Stock as to which the waiver applies. Such waiver may be effected at any time, whether before or after the Participant's cessation of Service or the attainment or non-attainment of the applicable performance objectives.

II. TRANSFER RESTRICTIONS/SHARE ESCROW

A. Unvested shares under this Article Four may, in the Plan Administrator's discretion, be held in escrow by the Corporation until the Participant's interest in such shares vests or may be issued directly to the Participant with restrictive legends on the certificates evidencing such unvested shares. To the extent an escrow arrangement is utilized, the unvested shares and any securities or other assets issued with respect to such shares (other than regular cash dividends) shall be delivered in escrow to the Corporation to be held until the Participant's interest in such shares (or other securities or assets) vests. Alternatively, if the unvested shares are issued directly to the Participant, the restrictive legend on the certificates for such shares shall read substantially as follows:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE UNVESTED AND ARE ACCORDINGLY SUBJECT TO (I) CERTAIN TRANSFER RESTRICTIONS AND TO (II) CANCELLATION OR REPURCHASE IN THE EVENT THE REGISTERED HOLDER (OR HIS/HER PREDECESSOR IN INTEREST) CEASES TO REMAIN IN THE CORPORATION'S SERVICE. SUCH TRANSFER RESTRICTIONS AND THE TERMS AND CONDITIONS OF SUCH CANCELLATION OR REPURCHASE ARE SET FORTH IN A STOCK ISSUANCE AGREEMENT BETWEEN THE CORPORATION AND THE REGISTERED HOLDER (OR HIS/HER PREDECESSOR IN INTEREST) DATED _____, 19____, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THE CORPORATION."

B. The Participant shall have no right to transfer any unvested shares of Common Stock issued to him or her under this Article Four. For purposes of this restriction, the term "transfer" shall include (without limitation) any sale, pledge, assignment, encumbrance, gift, or other disposition of such shares, whether voluntary or involuntary. Upon any such attempted transfer, the unvested shares shall immediately be cancelled, and neither the Participant nor the proposed transferee shall have any rights with respect to those shares. However, the Participant shall have the right to make a gift of unvested shares acquired under the Plan to his or her spouse or issue, including adopted children, or to a trust established for such spouse or issue, provided the donee of such shares delivers to the Corporation a written agreement to be bound by all the provisions of the Plan and the Issuance Agreement applicable to the gifted shares.

ARTICLE FIVE

DIRECTOR FEE OPTION GRANT PROGRAM

I. OPTION GRANTS

Each non-employee Board member may, commencing with the 1999 calendar year, elect to apply all or any portion of the fee otherwise payable to him or her in cash each year for his or her Board service to the acquisition of a special option grant under this Director Fee Option Grant Program. Such election must be filed with the Corporation's Chief Financial Officer prior to last day of December in the calendar year immediately preceding the calendar year for which the fee subject of that election is otherwise payable. Each non-employee Board member who files such a timely election shall automatically be granted an option under this Director Fee Option Grant Program on the first trading day in January in the calendar year for which the fee subject of that election would otherwise be payable. Until the Corporation establishes an annual retainer fee for the non-employee Board members, the dollar amount of the fee subject to the Board member's election each year shall be equal to the number of regularly-scheduled Board meetings for that year multiplied by the per Board

meeting fee in effect for such year. Stockholder approval of the 1998 Restatement at the 1998 Annual Stockholders Meeting constitutes pre-approval of each option subsequently granted pursuant to the express terms of this Director Fee Option Grant Program and the subsequent exercise of that option in accordance with its terms.

II. OPTION TERMS

Each option shall be a Non-Statutory Option governed by the terms and conditions specified below.

A. EXERCISE PRICE.

1. The exercise price per share shall be thirty-three and one-third percent (33-1/3%) of the Fair Market Value per share of Common Stock on the option grant date.

2. The exercise price shall become immediately due upon exercise of the option and shall be payable in one or more of the alternative forms authorized under the Discretionary Option Grant Program. Except to the extent the sale and remittance procedure specified thereunder is utilized, payment of the exercise price for the purchased shares must be made on the Exercise Date.

B. NUMBER OF OPTION SHARES. The number of shares of Common Stock subject to the option shall be determined pursuant to the following formula (rounded down to the nearest whole number):

$$X = A / (B \times 66\frac{2}{3}\%), \text{ where}$$

X is the number of option shares,

A is the portion of the annual retainer fee subject to the non-employee Board member's election, and

B is the Fair Market Value per share of Common Stock on the option grant date.

C. EXERCISE AND TERM OF OPTIONS. The option shall become exercisable in a series of twelve (12) successive equal monthly installments upon the Optionee's completion of each calendar month of Board service in the calendar year for which the annual retainer fee which is the subject of his or her election under this Article Five would otherwise be payable. Each option shall have a maximum term of ten (10) years measured from the option grant date.

D. EFFECT OF TERMINATION OF SERVICE. Should the optionee cease Board service for any reason (other than death or permanent disability as defined in Section 22(e)(3) of the Internal Revenue Code) while holding one or more options under this Article Five, then each such option shall remain exercisable, for any or all of the shares for which the option is exercisable at the time of such cessation of Board service, until the earlier of (i) the expiration of the ten (10)-year option term or (ii) the expiration of the three (3)-year period measured from the date of such cessation of Board service. However, each option held by the optionee under this Article Five at the time of his or her cessation of Board service shall immediately terminate and cease to remain outstanding with respect to any and all shares of Common Stock for which the option is not otherwise at that time exercisable.

E. DEATH OR PERMANENT DISABILITY. Should the Optionee's service as a Board member cease by reason of death or permanent disability as defined in Section 22(e)(3) of the Internal Revenue Code, then each option held by such optionee under this Article Five shall immediately become exercisable for all the shares of Common Stock at the time subject to that option, and the option may, during the three (3)-year period following such cessation of Board service, be exercised for any or all of those shares as fully-vested shares.

Should the optionee die while holding one or more options under this Article Five, then each such option may be exercised, for any or all of the shares for which the option is exercisable at the time of the optionee's cessation of Board service (less any shares subsequently purchased by optionee prior to death), by the personal representative of the optionee's estate or by the person or persons to whom the option is transferred pursuant to the optionee's will or in accordance with the laws of descent and distribution. Such

right of exercise shall lapse, and the option shall terminate, upon the earlier of (i) the expiration of the ten (10)-year option term or (ii) the three (3)-year period measured from the date of the optionee's cessation of Board service.

III. CORPORATE TRANSACTION

A. For purposes of this Section III, a "Corporate Transaction" shall be one or more of the following stockholder-approved transactions:

(i) a merger or consolidation in which the Corporation is not the surviving entity, except for a transaction the principal purpose of which is to change the State of the Corporation's incorporation,

(ii) the sale, transfer or disposition of all or substantially all of the assets of the Corporation in liquidation or dissolution of the Corporation, or

(iii) any reverse merger in which the Corporation is the surviving entity but in which securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities are transferred to holders different from those who held such securities immediately prior to such merger.

B. In the event of any Corporate Transaction, the shares of Common Stock at the time subject to each outstanding option but not otherwise vested shall automatically vest in full so that each such option shall, immediately prior to the effective date of the Corporate Transaction, become fully exercisable for all of the shares of Common Stock at the time subject to such option and may be exercised for all or any portion of those shares as fully-vested shares of Common Stock. Immediately following the consummation of the Corporate Transaction, each automatic option grant shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof).

C. Each outstanding option which is assumed in connection with a Corporate Transaction or is otherwise to continue in effect shall be appropriately adjusted, immediately after such Corporate Transaction, to apply and pertain to the number and class of securities which would be issuable, in consummation of such Corporate Transaction, to an actual holder of the same number of shares of Common Stock as are subject to such option immediately prior to such Corporate Transaction, and appropriate adjustments shall also be made to the option price payable per share, provided the aggregate option price payable for such securities shall remain the same.

D. The grant of options under this Article Five shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

IV. REMAINING TERMS

The remaining terms of each option granted under this Director Fee Option Grant Program shall be the same as the terms in effect for option grants made under the Discretionary Option Grant Program.

ARTICLE SIX

MISCELLANEOUS

I. EFFECT OF TRANSACTIONS ON OUTSTANDING OPTIONS

A. Prior to the Effective Date of the Plan, the Company's outstanding common stock was reclassified as Series B Common Stock and subjected to a 3 for 4 reverse stock split. As part of the same transaction, one-third of a share of newly authorized Series A Common Stock was distributed with respect

to each outstanding share of Series B Common Stock. Under the Company's 1988 Stock Option Plan and each of the options outstanding as of the record date for such dividend ("Affected Option"), which options are incorporated under this Plan, appropriate adjustment must be made to the outstanding options to reflect such reverse stock split and stock dividend. Such appropriate adjustments were as follows:

1. The aggregate number of shares of Common Stock available under any Affected Option shall be unchanged by the reverse stock split and stock dividend, but 75% of such total number shares of Common Stock available under such options shall be Class B Common Stock and 25% of such total number shall be Class A Common Stock.

2. The option price per share for each share of stock available under an Affected Option will remain unchanged, and the aggregate option price for all shares available under the option will remain unchanged.

3. Any vesting schedule imposed under an Affected Option will be applied separately to the total Class A and Class B Common Stock so that on each vesting date the holder will vest in one Class A share for every three shares of Class B Common Stock vesting on such date.

4. Option holders may separately exercise all or any portion of the vested options of either Class of Common Stock.

B. As a result of a Conversion pursuant to the terms of the Company's Certificate of Incorporation, all outstanding shares of Class A Common Stock of the Corporation were converted into 1.33 shares of Class B Common Stock (which became the only outstanding class of Common Stock of the Corporation). Under this Plan, each outstanding option to purchase shares of Class A Common Stock must be adjusted to reflect such conversion. Such adjustments are as follows:

1. Each option to purchase a share of Class A Common Stock (a "Converted Option") is automatically converted into an option to purchase 1.33 shares of Common Stock.

2. The aggregate option price per share for each Converted Option will remain unchanged, but the price per share for each share of Common Stock under a Converted Option will equal the purchase price payable for a share of Class A Common Stock divided by 1.33.

3. Any remaining vesting schedule imposed under a Converted Option will apply to the Common Stock available under such Option.

II. LOANS

A. The Plan Administrator may, in its discretion, assist any Optionee or Participant (including an Optionee or Participant who is an officer of the Corporation) in the exercise of one or more options granted to such Optionee under the Article Two Discretionary Option Grant Program or the purchase of one or more shares issued to such Participant under the Article Four Stock Issuance Program, including the satisfaction of any Federal and State income and employment tax obligations arising therefrom by (i) authorizing the extension of a loan from the Corporation to such Optionee or Participant or (ii) permitting the Optionee or Participant to pay the option price or purchase price for the purchased Common Stock in installments over a period of years. The terms of any loan or installment method of payment (including the interest rate and terms of repayment) will be upon such terms as the Plan Administrator specifies in the applicable option or issuance agreement or otherwise deems appropriate under the circumstances. Loans and installment payments may be granted with or without security or collateral (other than to individuals who are consultants or independent contractors, in which event the loan must be adequately secured by collateral other than the purchased shares). However, the maximum credit available to the Optionee or Participant may not exceed the option or purchase price of the acquired shares (less the par value of such shares) plus any Federal and State income and employment tax liability incurred by the Optionee or Participant in connection with the acquisition of such shares.

B. The Plan Administrator may, in its absolute discretion,

determine that one or more loans extended under this financial assistance program shall be subject to forgiveness by the Corporation in whole or in part upon such terms and conditions as the Plan Administrator may deem appropriate.

III. TAX WITHHOLDING

A. The Company's obligation to deliver shares or cash upon the exercise of stock options or stock appreciation rights granted under the Discretionary Option Grant Program or upon direct issuance under the Stock Issuance Program shall be subject to the satisfaction of all applicable Federal, State and local income and employment tax withholding requirements.

B. The Plan Administrator may, in its discretion and upon such terms and conditions as it may deem appropriate provide any or all holders of outstanding option grants under the Discretionary Option Grant Program with the election to have the Company withhold, from the shares of Common Stock otherwise issuable upon the exercise of such options, a portion of such shares with an aggregate Fair Market Value equal to the designated percentage (up to 100% as specified by the optionee) of the Federal and State income taxes ("Taxes")

incurred in connection with the acquisition of such shares. In lieu of such direct withholding, one or more option holders may also be granted the right to deliver shares of Common Stock to the Company in satisfaction of such Taxes. The withheld or delivered shares shall be valued at the Fair Market Value on the applicable determination date for such Taxes.

IV. AMENDMENT OF THE PLAN AND AWARDS

A. The Board has complete and exclusive power and authority to amend or modify the Plan (or any component thereof) in any or all respects whatsoever. No amendment or modification may adversely affect the rights and obligations of an Optionee with respect to options at the time outstanding under the Plan, nor adversely affect the rights of any Participant with respect to Common Stock issued under the Plan prior to such action, unless the Optionee or Participant consents to such amendment or modification. In addition, certain amendments may require stockholder approval if so determined by the Board or pursuant to applicable laws or regulations.

B. (i) Options to purchase shares of Common Stock may be granted under the Discretionary Option Grant Program or the Automatic Option Grant Program and (ii) shares of Common Stock may be issued under the Stock Issuance Program, which are in both instances in excess of the number of shares then available for issuance under the Plan, provided any excess shares actually issued under the Option Grant Program, the Automatic Option Grant Program or the Stock Issuance Program are held in escrow until stockholder approval is obtained for a sufficient increase in the number of shares available for issuance under the Plan. If such stockholder approval is not obtained within twelve (12) months after the date the first such excess option grants or excess share issuances are made, then (I) any unexercised excess options shall terminate and cease to be exercisable and (II) the Corporation shall promptly refund the purchase price paid for any excess shares actually issued under the Plan and held in escrow, together with interest (at the applicable Short Term Federal Rate) for the period the shares were held in escrow.

C. Effective as of March 31, 1999, the Board amended and restated the Plan to increase the maximum number of shares of Common Stock authorized for issuance over the term of the Plan from 8,088,457 shares to 9,073,457 shares. This amendment is subject to stockholder approval at the 1999 Annual Meeting. Until such stockholder approval is obtained, any options granted on the basis of the amendment shall not become exercisable in whole or in part, and those options shall terminate without ever becoming exercisable for the option shares. All option grants and direct stock issuances made prior to the amendment shall remain outstanding in accordance with the terms and conditions of the respective instruments evidencing those options or issuances, and nothing in the amendment shall be deemed to modify or in any way affect those outstanding options or issuances. The Plan Administrator may make option grants and direct stock issuances under the Plan at any time before the date fixed herein for the termination of the Plan.

V. EFFECTIVE DATE AND TERM OF PLAN

A. This Plan, as successor to the Company's Predecessor Plans, became effective as of the Effective Date, and no further option grants shall be made under the Option

Plan nor shall any further shares be issued under the Stock Plan from and after such Effective Date.

B. Each outstanding option and share issuance under the Predecessor Plans immediately prior to the Effective Date of this Plan are hereby incorporated into this Plan and shall accordingly be treated as an outstanding option or share issuance under this Plan. Each such option or share issuance shall continue to be governed solely by the terms and conditions of the instrument evidencing such grant or issuance, and except as otherwise expressly provided in this Plan, no provision of this Plan shall affect or otherwise modify the rights or obligations of the holders of such options or shares with respect to their acquisition of shares of Common Stock, or otherwise modify the rights or obligations of the holders of such options or shares.

C. The sale and remittance procedure authorized for the exercise of outstanding options under this Plan shall be available for all options granted under this Plan on or after the Effective Date and for all Non-Statutory Options outstanding under the Option Plan and incorporated into this Plan. The Plan Administrator may also allow such procedure to be utilized in connection with one or more disqualifying dispositions of Incentive Option shares effected after the Effective Date, whether such Incentive Options were granted under this Plan or the Option Plan.

D. The Plan shall terminate upon the earlier of (i) November 16, 2002, or (ii) the date on which all shares available for issuance under the Plan shall have been issued or cancelled pursuant to the exercise, surrender or cash-out of the options granted under the Discretionary Option Grant Program or the issuance of shares (whether vested or unvested) under the Stock Issuance Program. If the date of termination is determined under clause (i) above, then all option grants and unvested stock issuances outstanding on such date shall thereafter continue to have force and effect in accordance with the provisions of the instruments evidencing such grants or issuances.

VI. USE OF PROCEEDS

Cash proceeds received by the Company from the sale of shares under the Plan shall be used for general corporate purposes.

VII. REGULATORY APPROVALS

A. The implementation of the Plan, the granting of any option under the Discretionary Option Grant Program, the issuance of any shares under the Stock Issuance Program, and the issuance of Common Stock upon the exercise or surrender of the option grants made hereunder shall be subject to the Corporation's procurement of all approvals and permits required by regulatory authorities having jurisdiction over the Plan, the options granted under it, and the Common Stock issued pursuant to it.

B. No shares of Common Stock or other assets shall be issued or delivered under this Plan unless and until there shall have been compliance with all applicable requirements of Federal and State securities laws, including the filing and effectiveness of the Form S-8 registration statement for the shares of Common Stock issuable under the Plan, and all applicable listing requirements of any securities exchange on which stock of the same class is then listed.

VIII. NO EMPLOYMENT/SERVICE RIGHTS

Neither the action of the Corporation in establishing the Plan, nor any action taken by the Plan Administrator hereunder, nor any provision of the Plan shall be construed so as to grant any individual the right to remain in the employ or service of the Corporation (or any parent or subsidiary corporation) for any period of specific duration, and the Corporation (or any parent or subsidiary corporation retaining the services of such individual) may terminate such individual's employment or service at any time and for any

reason, with or without cause.

IX. MISCELLANEOUS PROVISIONS

The provisions of the Plan shall inure to the benefit of, and be binding upon, the Corporation and its successors or assigns, whether by Corporate Transaction or otherwise, and the Participants and Optionees, the legal representatives of their respective estates, their respective heirs or legatees and their permitted assignees.

LIGAND PHARMACEUTICALS INCORPORATED

1992 EMPLOYEE STOCK PURCHASE PLAN AS AMENDED THROUGH MAY 20, 1999

I. PURPOSE

The Ligand Pharmaceuticals Incorporated 1992 Employee Stock Purchase Plan (the "Plan") is intended to provide eligible employees of the Company and one or more of its Corporate Affiliates with the opportunity to acquire a proprietary interest in the Company through the periodic application of their payroll deductions to the purchase of shares of the Company's common stock.

II. DEFINITIONS

For purposes of plan administration, the following terms shall have the meanings indicated:

Base Salary means the regular basic earnings paid to a Participant by one or more Participating Companies before deduction for any pre-tax contributions made by the Participant to any Code Section 401(k) salary deferral plan or any Code Section 125 cafeteria benefit program now or hereafter established by the Company or any Corporate Affiliate. There shall be excluded from the calculation of Base Salary (i) all overtime payments, bonuses, commissions, profit-sharing distributions and other incentive-type payments and (ii) all contributions (other than Code Section 401(k) or Code Section 125 contributions) made on the Participant's behalf by the Company or one or more Corporate Affiliates under any employee benefit or welfare plan now or hereafter established.

Board means the Company's Board of Directors.

Code means the Internal Revenue Code of 1986, as amended from time to time.

Common Stock means shares of the Company's common stock.

Company means Ligand Pharmaceuticals Incorporated, a Delaware corporation, and any corporate successor to all or substantially all of the assets or voting stock of Ligand Pharmaceuticals Incorporated which shall by appropriate action adopt the Plan.

Corporate Affiliate means any company which is a parent or subsidiary corporation of the Company (as determined in accordance with Code Section 424), including any parent or subsidiary corporation which becomes such after the Effective Date.

Effective Date meaning November 17, 1992, the start date of the initial offering period under the Plan. However, for any Corporate Affiliate which becomes a Participating Company in the Plan after such start date, a subsequent Effective Date shall be designated with respect to participation by its Eligible Employees.

Eligible Employee means any person who is engaged, on a regularly-scheduled basis of more than twenty (20) hours per week and more than five (5) months per calendar year, in the rendition of personal services to the Company or any other Participating Company for earnings considered wages under Section 3121(a) of the Code.

Entry Date means the date an Eligible Employee first joins the offering period in effect under the Plan. The earliest Entry Date under the Plan shall be the Effective Date.

Participant means any Eligible Employee of a Participating Company who is actively participating in the Plan.

Participating Company means the Company and such Corporate Affiliate or Affiliates as may be designated from time to time by the Board.

Quarterly Entry Date means the first business day of January, the first business day of April, the first business day of July and the first business day of October during each offering period in effect under the Plan. The earliest Quarterly Entry Date for an individual who is not otherwise eligible to join the Plan on the Effective Date shall be January 1, 1993.

Quarterly Period of Participation means each quarterly period for which the Participant actually participates in an offering period in effect under the Plan. Except as otherwise designated by the Plan Administrator, each quarterly period shall begin on the first business day of each calendar quarter and shall end on the last business day of such quarter.

Quarterly Purchase Date means the last business day of March, June, September and December each year on which shares of Common Stock are automatically purchased for Participants under the Plan.

Service means the period during which an individual remains in the employ of the Company or any Corporate Affiliate, whether or not in Eligible Employee status, and shall be measured from such individual's most recent date of hire by the Company or such Corporate Affiliate.

III. ADMINISTRATION

The Plan shall be administered by a committee (the "Plan Administrator") comprised of two or more non-employee Board members appointed from time to time by the Board. The Plan Administrator shall have full authority to administer the Plan, including authority to interpret and construe any provision of the Plan. Decisions of the Plan Administrator shall be final and binding on all parties who have an interest in the Plan.

IV. OFFERING PERIODS

A. Shares of Common Stock shall be offered for purchase under the Plan through a series of successive offering periods until such time as (i) the maximum number of shares of Common Stock available for issuance under the Plan shall have been purchased or (ii) the Plan shall have been sooner terminated in accordance with Article X.

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B. The initial offering period began on November 17, 1992, and ended on the last business day in December 1993. Subsequent offering periods shall be coincidental with the calendar year and shall accordingly commence on the first business day in January each year.

D. The Participant shall be granted a separate purchase right for each offering period in which he/she participates. The purchase right shall be granted on the Entry Date on which such individual first joins the offering period in effect under the Plan and shall be automatically exercised in successive installments on each Quarterly Purchase Date within the offering period.

E. The acquisition of Common Stock through participation in the Plan for any offering period shall neither limit nor require the acquisition of Common Stock by the Participant in any subsequent offering period.

V. ELIGIBILITY AND PARTICIPATION

A. Each Eligible Employee of a Participating Company shall be eligible to participate in the Plan in accordance with the following provisions:

- An Eligible Employee with at least five (5) months of Service on the start date of the offering period may enter that offering period on such start date, provided such individual enrolls in the offering period on or before such date in accordance with Section V.B below. That start date shall then become such individual's Entry Date for the offering period, and on that date such individual shall be granted his/her purchase right for the offering period. Should such Eligible Employee not enter the offering period on the start date, then he/she may not subsequently join that particular offering period on any later date.

- An individual who is not an Eligible Employee with at least five (5) months of Service on the start date of the offering period may subsequently enter that offering period on the first Quarterly Entry Date on which he/she is an Eligible Employee with at least five (5) months of Service, provided he/she enrolls in the offering period on or before such date in accordance with Section V.B below. That Quarterly Entry Date shall then become such individual's Entry Date for the offering period, and on that date such individual shall be granted his/her purchase right for the offering period. Should such Eligible Employee not enter the offering period on the first Quarterly Entry Date on which he/she is first eligible to join the offering period, then he/she may not subsequently join that particular offering period on any later date.

B. To participate for a particular offering period, the Eligible Employee must complete the enrollment forms prescribed by the Plan Administrator (including the purchase agreement and payroll deduction authorization) and file such forms with the Plan Administrator on or before his/her scheduled Entry Date.

C. The payroll deduction authorized by the Participant for purposes of acquiring shares of Common Stock under the Plan may be any multiple of one percent (1%) of the Base Salary paid to the Participant during each Quarterly Period of Participation within the

3.

offering period, up to a maximum of ten percent (10%). The deduction rate so authorized shall continue in effect for the remainder of the offering period, except to the extent such rate is changed in accordance with the following guidelines:

- The Participant may, at any time during the Quarterly Period of Participation, reduce his/her rate of payroll deduction. Such reduction shall become effective as soon as possible after filing of the requisite reduction form with the Plan Administrator (or its designate), but the Participant may not effect more than one such reduction during the same Quarterly Period of Participation.

- The Participant may, prior to the commencement of any new Quarterly Period of Participation within the offering period, increase or decrease the rate of his/her payroll deduction by filing the appropriate form with the Plan Administrator (or its designate). The new rate (which may not exceed the ten percent (10%) maximum) shall become effective as of the first date of the first Quarterly Period of Participation following the filing of such form.

- Payroll deductions will automatically cease upon the termination of the Participant's purchase right in accordance with the applicable provisions of Section VII below.

VI. STOCK SUBJECT TO PLAN

A. The Common Stock purchasable by Participants under the Plan shall, solely in the discretion of the Plan Administrator, be made available from either authorized but unissued shares of Common Stock or from shares of Common Stock reacquired by the Company, including shares of Common Stock purchased on the open market. The total number of shares which may be issued under the Plan shall not exceed 355,000 shares of Common Stock (provided that, for this purpose, each issuance of Class A Common Stock occurring prior to

November 24, 1994 shall be treated as if it were an issuance of 1.33 shares of Common Stock).

Such share reserve includes the 95,000-share increase approved by the Board effective as of March 31, 1999, subject to approval by the stockholders at the 1999 Annual Meeting. The number of shares of Common Stock issuable under the Plan shall be adjusted from time to time in accordance with Section VI.B hereof.

B. In the event any change is made to the Company's outstanding Common Stock by reason of any stock dividend, stock split, combination of shares or other change affecting such outstanding Common Stock as a class without receipt of consideration, then appropriate adjustments shall be made by the Plan Administrator to (i) the class and maximum number of shares issuable over the term of the Plan, (ii) the class and maximum number of shares purchasable per Participant during any one offering period and (iii) the class and number of shares and the price per share in effect under each purchase right at the time outstanding under the Plan. Such adjustments shall be designed to preclude the dilution or enlargement of rights and benefits under the Plan.

4.

VII. PURCHASE RIGHTS

An Employee who participates in the Plan for a particular offering period shall have the right to purchase shares of Common Stock, in a series of successive quarterly installments during such offering period, upon the terms and conditions set forth below and shall execute a purchase agreement embodying such terms and conditions and such other provisions (not inconsistent with the Plan) as the Plan Administrator may deem advisable.

Purchase Price. Common Stock shall be issuable at the end of each Quarterly Period of Participation at a purchase price equal to eighty-five percent (85%) of the lower of (i) the fair market value per share on the Participant's Entry Date into the offering period or (ii) the fair market value per share on the Quarterly Purchase Date on which such Quarterly Period of Participation ends. However, for each Participant whose Entry Date is other than the start date of the offering period in effect under the Plan, the clause (i) amount shall in no event be less than the fair market value of the Common Stock on the start date of such offering period.

Valuation. For purposes of determining the fair market value per share of Common Stock on any relevant date the fair market value shall be the closing selling price on that date, as officially quoted on the Nasdaq National Market. If there is no quoted selling price for such date, then the closing selling price on the next preceding day for which there does exist such a quotation shall be determinative of fair market value.

Number of Purchasable Shares. The number of shares purchasable per Participant for each Quarterly Period of Participation shall be the number of whole shares obtained by dividing the amount collected from the Participant through payroll deductions during such Quarterly Period of Participation by the purchase price in effect for the Quarterly Purchase Date on which such Quarterly Period of Participation ends. However, no Participant may, during any one offering period, purchase more than 1,330 shares of Common Stock, subject to periodic adjustment under Section VI.B.

Under no circumstances shall purchase rights be granted under the Plan to any Eligible Employee if such individual would, immediately after the grant, own (within the meaning of Code Section 424(d)) or hold outstanding options or other rights to purchase, stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any of its Corporate Affiliates.

Payment. Payment for the Common Stock purchased under the Plan shall be effected by means of the Participant's authorized payroll deductions. Such deductions shall begin on the first pay day coincident with or immediately following the Participant's Entry Date into the offering period and shall (unless sooner terminated by the Participant) continue through the pay day ending with or immediately prior to the last day of the offering period. The amounts so collected shall be credited to the Participant's book account under the Plan, but no interest shall be paid on the balance from time to time

outstanding in such account. The amounts collected from a Participant may be commingled with the general assets of the Company and may be used for general corporate purposes.

5.

Termination of Purchase Right. The following provisions shall govern the termination of outstanding purchase rights:

(i) A Participant may, at any time prior to the last five (5) business days of the Quarterly Period of Participation, terminate his/her outstanding purchase right under the Plan by filing the prescribed notification form with the Plan Administrator (or its designate). No further payroll deductions shall be collected from the Participant with respect to the terminated purchase right, and any payroll deductions collected for the Quarterly Period of Participation in which such termination occurs shall, at the Participant's election, be immediately refunded or held for the purchase of shares on the next Quarterly Purchase Date. If no such election is made, then such funds shall be refunded as soon as possible after the close of such Quarterly Period of Participation.

(ii) The termination of such purchase right shall be irrevocable, and the Participant may not subsequently rejoin the offering period for which such terminated purchase right was granted. In order to resume participation in any subsequent offering period, such individual must re-enroll in the Plan (by making a timely filing of a new purchase agreement and payroll deduction authorization) during the applicable enrollment period for the new offering.

(iii) If the Participant ceases to remain an Eligible Employee while his/her purchase right remains outstanding, then such individual (or the personal representative of the estate of a deceased Participant) shall have the following election, exercisable up until the end of the Quarterly Period of Participation in which the Participant ceases Eligible Employee status:

- to withdraw all of the Participant's payroll deductions for such Quarterly Period of Participation, or

- to have such funds held for the purchase of shares on the Quarterly Purchase Date immediately following such cessation of Eligible Employee status.

If no such election is made, then such funds shall be refunded as soon as possible after the close of such Quarterly Period of Participation. In no event, however, may any payroll deductions be made on the Participant's behalf following his/her cessation of Eligible Employee status.

Stock Purchase. Shares of Common Stock shall automatically be purchased on behalf of each Participant (other than Participants whose payroll deductions have previously been refunded in accordance with the Termination of Purchase Right provisions above) on each Quarterly Purchase Date. The purchase shall be effected by applying each Participant's payroll deductions for the Quarterly Period of Participation ending on such Quarterly Purchase Date (together with any carryover deductions from the preceding Quarterly Period of Participation) to the purchase of whole shares of Common Stock (subject to the limitation on the maximum number of purchasable shares set forth above) at the purchase price in effect for such Quarterly

6.

Period of Participation. Any payroll deductions not applied to such purchase because they are not sufficient to purchase a whole share shall be held for the purchase of Common Stock in the next Quarterly Period of Participation. However, any payroll deductions not applied to the purchase of Common Stock by reason of the limitation on the maximum number of shares purchasable by the Participant for that offering period shall be promptly refunded to the Participant.

Proration of Purchase Rights. Should the total number of shares

of Common Stock which are to be purchased pursuant to outstanding purchase rights on any particular date exceed the number of shares then available for issuance under the Plan, the Plan Administrator shall make a pro-rata allocation of the available shares on a uniform and nondiscriminatory basis, and the payroll deductions of each Participant, to the extent in excess of the aggregate purchase price payable for the Common Stock pro-rated to such individual, shall be refunded to such Participant.

Rights as Stockholder. A Participant shall have no stockholder rights with respect to the shares subject to his/her outstanding purchase right until the shares are actually purchased on the Participant's behalf in accordance with the applicable provisions of the Plan. No adjustments shall be made for dividends, distributions or other rights for which the record date is prior to the date of such purchase.

A Participant shall be entitled to receive, as soon as practicable after each Quarterly Purchase Date, a stock certificate for the number of shares purchased on the Participant's behalf. Such certificate may, upon the Participant's request, be issued in the names of the Participant and his/her spouse as community property or as joint tenants with right of survivorship.

Assignability. No purchase right granted under the Plan shall be assignable or transferable by the Participant other than by will or by the laws of descent and distribution following the Participant's death, and during the Participant's lifetime the purchase right shall be exercisable only by the Participant.

Change in Ownership. Should the Company or its stockholders enter into an agreement to dispose of all or substantially all of the assets or outstanding capital stock of the Company by means of:

(i) a sale, merger or other reorganization in which the Company will not be the surviving corporation (other than a reorganization effected primarily to change the State in which the Company is incorporated), or

(ii) a reverse merger in which the Company is the surviving corporation but in which more than 50% of the Company's outstanding voting stock is transferred to holders different from those who held the stock immediately prior to the reverse merger,

then all outstanding purchase rights under the Plan shall automatically be exercised immediately prior to the consummation of such sale, merger, reorganization or reverse merger by applying the payroll deductions of each Participant for the Quarterly Period of Participation in which such transaction occurs to the purchase of whole shares of Common Stock

7.

at eighty-five percent (85%) of the lower of (i) the fair market value of the Common Stock on the Participant's Entry Date into the offering period in which such transaction occurs or (ii) the fair market value of the Common Stock immediately prior to the consummation of such transaction. However, the applicable share limitations of Articles VII and VIII shall continue to apply to any such purchase, and the clause (i) amount above shall not, for any Participant whose Entry Date for the offering period is other than the start date of such offering period, be less than the fair market value of the Common Stock on such start date.

The Company shall use its best efforts to provide at least ten (10)-days advance written notice of the occurrence of any such sale, merger, reorganization or reverse merger, and Participants shall, following the receipt of such notice, have the right to terminate their outstanding purchase rights in accordance with the applicable provisions of this Article VII.

VIII. ACCRUAL LIMITATIONS

A. No Participant shall be entitled to accrue rights to acquire Common Stock pursuant to any purchase right outstanding under this Plan if and to the extent such accrual, when aggregated with (1) rights to purchase Common Stock accrued under any other purchase right outstanding under this Plan and

(II) similar rights accrued under other employee stock purchase plans (within the meaning of Section 423 of the Code) of the Company or its Corporate Affiliates, would otherwise permit such Participant to purchase more than \$25,000 worth of stock of the Company or any Corporate Affiliate (determined on the basis of the fair market value of such stock on the date or dates such rights are granted to the Participant) for each calendar year such rights are at any time outstanding.

B. For purposes of applying such accrual limitations the right to acquire Common Stock pursuant to each purchase right outstanding under the Plan shall accrue as follows:

(i) The right to acquire (Common Stock under each such purchase right shall accrue in a series of successive quarterly installments as and when the purchase right first becomes exercisable for each quarterly installment on the last business day of each Quarterly Period of Participation for which the right remains outstanding.

(ii) No right to acquire Common Stock under any outstanding purchase right shall accrue to the extent the Participant has already accrued in the same calendar year the right to acquire \$25,000 worth of Common Stock (determined on the basis of the fair market value on the date or dates of grant) pursuant to one or more purchase rights held by the Participant during such calendar year.

(iii) If by reason of such accrual limitations any purchase right of a Participant does not accrue for a particular Quarterly Period of Participation? then the payroll deductions which the Participant made during that Quarterly Period of Participation with respect to such purchase right shall be promptly refunded.

8.

C. In the event there is any conflict between the provisions of this Article VIII and one or more provisions of the Plan or any instrument issued thereunder, the provisions of this Article VIII shall be controlling.

IX. STATUS OF PLAN UNDER FEDERAL TAX LAWS

The Plan is designed to qualify as an employee stock purchase plan under Code Section 423. Accordingly, the Participant will not recognize any taxable income at the time one or more shares of Common Stock are purchased on his/her behalf on any Quarterly Purchase Date under the Plan.

X. AMENDMENT AND TERMINATION

A. The Board may alter, amend, suspend or discontinue the Plan following the close of any Quarterly Period of Participation. However, the Board may not, without the approval of the Company's stockholders:

(i) increase the number of shares issuable under the Plan or the maximum number of shares which may be purchased per Participant during any one offering period under the Plan, except that the Plan Administrator shall have the authority, exercisable without such stockholder approval, to effect adjustments to the extent necessary to reflect changes in the Company's capital structure pursuant to Section VI.B;

(ii) alter the purchase price formula so as to reduce the purchase price payable for the shares issuable under the Plan; or

(iii) materially increase the benefits accruing to Participants under the Plan or materially modify the requirements for eligibility to participate in the Plan.

B. The Company shall have the right, exercisable in the sole discretion of the Plan Administrator, to terminate all outstanding purchase rights under the Plan immediately following the close of any Quarterly Period of Participation. Should the Company elect to exercise such right, then the Plan shall terminate in its entirety. No further purchase rights shall thereafter be granted or exercised, and no further payroll deductions shall thereafter be

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Signature(s) _____ Date _____

NOTE: Please sign as name appears hereon. Joint owners should each sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. Please give full title as such, and, if signing for a corporation, give your title. When shares are in the names of more than one person, each should sign.

FOLD AND DETACH HERE