

United States
Securities and Exchange Commission
Washington, D.C. 20549

Form 8-K
Current Report
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (date of earliest event reported): May 22, 1997

Atlantic Pharmaceuticals, Inc.

(Exact name of registrant as specified in charter)

Delaware	0-2872	36-3898269
-----	-----	-----
(State or other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification)
1017 Main Campus Drive, Suite 3900, Raleigh, NC		27606
-----	-----	-----
(Address of Principal Executive Offices)		(Zip Code)

Registrant's telephone number, including area code: (919)513-7020

Former Name or Former Address, if changed since last report.

Item 5. Other Events

Pursuant to a private placement of Series A Convertible Preferred Stock, par value \$0.001 (the "Preferred Stock"), of Atlantic Pharmaceuticals, Inc., a Delaware corporation (the "Company"), the Company issued and sold an aggregate of 230,000 shares of Preferred Stock to certain accredited investors on May 22, 1997 in consideration of an aggregate amount equal to \$2,300,000. The net proceeds to the Company after deducting commissions and expenses of the private placement agent were \$2,001,000.

The rights and preferences of the Preferred Stock are as described in the Certificate of Designations of Series A Convertible Preferred Stock which was filed with the Secretary of State of Delaware on May 22, 1997. (See exhibit Number 99.5) The holders of the Preferred Stock have registration rights as to the shares of common stock, par value \$0.001, underlying the Preferred Stock.

Item 7. Financial Statements, Pro Forma Financial Information and Exhibits.

(a) Financial Statements

The Company has determined that no financial statements are required to be filed pursuant to this item. The Company, however, is enclosing an unaudited Balance Sheet at May 31, 1997, an unaudited Statement of Operations for the period from January 1, 1997 to May 31, an unaudited statement of cash flows for the period from January 1, 1997 to May 31, 1997 and a Financial Data Schedule as Exhibits hereto.

(b) Pro Forma Financial Information

The Company has determined that no pro forma financial statements are required to be filed pursuant to this item.

(c) Exhibits

Exhibit No.	Description
-----	-----
99.1	Unaudited Balance Sheet at May 31, 1997
99.2	Unaudited Statement of Operations for the period from January 1, 1997 to May 31, 1997.
99.3	Unaudited statement of cash flows for the period from January 1, 1997 to May 31, 1997.
99.5	Certificate of Designations of Series A Convertible Preferred Stock
27.1	Financial Data Schedule.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Atlantic Pharmaceuticals, Inc.

J D Lindjord

By: J D Lindjord, Chief Executive Officer
and President

Dated: June 4, 1997

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM FINANCIAL STATEMENTS FOR THE PERIOD ENDED MAY 31, 1997 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS

5-MOS	DEC-31-1997		
	JAN-01-1997		
	MAY-31-1997		
		2,669,965	
		0	
		0	
		0	
	2,792,741		
		130,768	
	93,226		
	2,923,509		
	228,514		
		0	
	230		
		0	
		2,914	
		12,721,167	
2,923,509			
		0	
	2,288		
		0	
	3,817,040		
		0	
	(32,725)		
	(1,498,914)		
		0	
(1,498,914)			
		0	
		0	
		0	
	(1,498,914)		
		(0.32)	
		(0.32)	

ATLANTIC PHARMACEUTICALS, INC. AND SUBSIDIARIES

(a development stage company)
 Consolidated Balance Sheets (unaudited)
 May 31, 1997 and December 31, 1996

Assets	5/31/97	12/31/96
Current assets:		
Cash and cash equivalents	\$ 2,699,965	2,269,532
Prepaid expenses	66,876	24,949
Accounts Receivable	25,900	
Total current assets	2,792,741	2,294,481
Furniture and equipment, net of accumulated depreciation of \$93,226 and \$75,133 at May 31, 1997 and December 31, 1996, respectively.	130,768	82,761
	2,923,509	2,377,242
Liabilities and Stockholders' Equity		
Current liabilities:		
Accrued expenses	228,514	281,792
Total current liabilities	228,514	281,792
Stockholders' equity		
Preferred stock, \$.001 par value. Authorized 50,000,000 shares; 230,000 shares issued and outstanding	230	--
Common stock \$.001 par value. Authorized 80,000,000 shares; 2,913,720 shares issued and outstanding at May 31, 1997 and December 31, 1996, respectively	2,914	2,914
Common stock subscribed, 182 shares at May 31, 1997 and December 31, 1996.	--	--
Additional paid -in capital	12,721,167	10,634,938
Deficit accumulated during development stage	(9,937,573)	(8,438,660)
Deferred compensation	(91,200)	(103,200)
	2,695,537	2,095,992
Less common stock subscriptions receivable	(218)	(218)
Less treasury stock, at cost	(324)	(324)
Total stockholders' equity	2,694,995	2,095,450
	2,923,509	2,377,242

See accompanying notes to consolidated financial statements.

Atlantic Pharmaceuticals, Inc. and Subsidiaries
 (a development stage company)
 Notes to Consolidated Financial Statements (Unaudited)
 For the five months period ended May 31, 1997

(1) Basis of Presentation

The accompanying financial statements have been prepared in accordance with Generally Accepted Accounting Principles for interim financial information. Accordingly, they do not include all information and footnotes required by Generally Accepted Accounting Principles for complete financial statements. In the opinion of management, the accompanying financial statements reflect all adjustments, consisting of only normal recurring adjustments, considered necessary for fair presentation. Operating results are not necessarily indicative of results that may be expected for the year ending December 31,

1997. These financial statements should be read in conjunction with the Company's Annual Report on Form 10 - KSB for the year ended December 31, 1996 and the Company's Quarterly Report on Form - 10 QSB for the quarter ended march 31, 1997.

a. Issuance of Convertible Preferred Stock

Pursuant to a private placement of Series A Convertible Preferred Stock, par value \$0.001 (the "Preferred Stock"), of Atlantic Pharmaceuticals, Inc., a Delaware corporation (the "Company"), the Company issued and sold an aggregate of 230,000 shares of Preferred Stock to certain accredited investors on May 22, 1997 in consideration of an aggregate amount equal to \$2,300,000. The net proceeds to the Company after deducting commissions and expenses of the private placement agent were \$2,001,000.

ATLANTIC PHARMACEUTICALS, INC. AND SUBSIDIARIES

(a development stage company)
Consolidated Statements of Operations (Unaudited)
For the period from January 1, 1997 to May 31, 1997

		Period Ended May 31, 1997
=====		
Revenue:		
Grant revenue		2,288
Total Revenue		2,288
=====		
Costs and expenses:		
Research and development	\$	437,771
License fees		--
General and administrative		1,096,156
Total operating expenses		1,533,927
=====		
Other expense (income):		
Interest income		(32,725)
Interest expense		--
Total other expense (income)		(32,725)
=====		
Net loss		(1,498,914)
=====		
Net loss per share	\$	(0.32)
=====		
Shares used in calculation of net loss per share		2,913,720
=====		

ATLANTIC PHARMACEUTICALS, INC. AND SUBSIDIARIES

(a development stage company)
 Consolidated Statements of Cash Flows (Unaudited)
 For the period from January 1, 1997 to May 31, 1997

For the period from January 1, 1997 to May 31, 1997

Cash flows from operating activities:	
Net loss	\$(1,498,914)
Adjustments to reconcile net loss to net cash used in operating activities:	
Compensation expense relating to	
Warrants	85,442
Stock Options	12,000
Discount on notes payable -	
Bridge financing	--
Depreciation	18,093
Changes in assets and liabilities:	
Increase in prepaid expenses	(41,927)
Increase (decrease) in accrued expenses	(53,279)
Increase (decrease) in accrued interest	--

 Net cash used in operating activities (1,478,585)
 =====

Net cash used in investing activities - acquisition
 of furniture and equipment (92,000)
 =====

Cash flows from financing activities:	
Proceeds from issuance of demand notes payable	--
Repayment of demand notes payable	
Proceeds from the issuance of notes payable -	
bridge financing	--
Proceeds of issuance of warrants	--
Repayment of notes payable - bridge financing	
Repurchase of common stock	--
Proceeds from the issuance of common stock	2,001,018

 Net cash provided by (used in) financing activities 2,001,018
 =====

Net increase (decrease) in cash and cash equivalents 430,433

Cash and cash equivalents at beginning of period 2,269,532

 Cash and cash equivalents at end of period \$ 2,699,965
 =====

Supplemental disclosure of noncash financing
 activities:

Issuance of common stock in exchange for common stock subscriptions	--	--
Conversion of demand notes payable and the related accrued interest to common stock	--	--

See accompanying notes to consolidated financial statements.

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "ATLANTIC PHARMACEUTICALS, INC.", FILED IN THIS OFFICE ON THE TWENTY-SECOND DAY OF MAY, A.D. 1997, AT 12 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

Edward J. Freel, Secretary of State

2336756 8100

AUTHENTICATION: 8478613

971167537

DATE: 05-23-97

CERTIFICATE OF DESIGNATIONS

of

SERIES A CONVERTIBLE PREFERRED

STOCK

of

ATLANTIC PHARMACEUTICALS, INC.

Pursuant to Section 151(g) of the
General Corporation Law of the State of Delaware

ATLANTIC PHARMACEUTICALS, INC, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), does hereby certify that, pursuant to the authority conferred on the Board of Directors of the Corporation by the Certificate of Incorporation, as amended and restated to date (the "Certificate of Incorporation"), of the Corporation and in accordance with Section 151(g) of the General Corporation Law of the State of Delaware, the Board of Directors of the Corporation adopted the following resolution establishing a series of 1,100,000 shares of Preferred Stock of the Corporation designated as "Series A Convertible Preferred Stock":

RESOLVED, that pursuant to the authority conferred on the Board of Directors of this Corporation by the Certificate of Incorporation, a series of Preferred Stock, par value \$0.001 per share, of the Corporation is hereby established and created, and that the designation and number of shares thereof and the voting and other powers, preferences and relative, participating, optional or other rights of the shares of such series and the qualifications, limitations and restrictions thereof are as follows:

Series A Convertible Preferred Stock

1. Designation and Amount. There shall be a series of Preferred Stock designated as "Series A Convertible Preferred Stock" and the number of shares constituting such series shall be 1,100,000. Such series is referred to herein as the "Series A Preferred Stock" and shall have a stated value (the "Stated Value") of \$10.00 per share. Such number of shares may be increased prior to the Final Closing Date (as defined in Section 4(a)) or decreased by resolution of the Board of Directors of the Corporation; provided, however, that no decrease shall reduce the number of shares of Series A Preferred Stock to less than the number of shares then Issued and outstanding.

2. Dividends and Distributions. (a) Commencing on the Reset Date (as defined in Section 4(a) below), the holders of the Series A Preferred Stock shall be entitled to

receive cumulative dividends on each share of Series A Preferred Stock, payable in kind, at the rate of 10% per annum (computed on the basis of a 365-day year) of the Dividend Base Amount (as defined below), payable semi-annually in arrears. Such dividends shall be paid in additional duly authorized, fully-paid and nonassessable shares of Series A Preferred Stock. Such dividends shall accrue and accumulate whether or not they have been declared and whether or not there are profits, surplus or other funds of the Corporation legally available for the payment of dividends. The "Dividend Base Amount" shall be \$13.00 plus all accrued but unpaid dividends (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred Stock. The value of the Series A Preferred Stock for purposes of calculating the number of shares to be paid upon any payment in kind dividend for purposes of this Section 2(a) shall be the Stated Value.

(b) In addition to the foregoing, subject to the prior and superior rights of the holders of any shares of any series or class of capital stock ranking prior and superior to the shares of Series A Preferred Stock with respect to dividends, the holders of shares of Series A Preferred Stock shall be entitled to receive, as, when and if declared by the Board of Directors of the Corporation, out of assets legally available for that purpose, dividends or distributions in cash, stock or otherwise.

(c) The Corporation shall not declare any dividend or distribution on any Junior Stock (as defined in Section 2(g)) or any other capital stock of the Company unless and until a special dividend or distribution of \$13.00 per share (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred Stock) has been declared and paid on the Series A Preferred Stock. In the event such special dividend or distribution is declared and paid on the Series A Preferred Stock, an aggregate per share dividend or distribution equal to (i) \$13.00 divided by (ii) the effective Conversion Rate (as defined in Section 4(a)) at the time of such special dividend or distribution on the Series A Preferred Stock may be declared and paid on the Common Stock. Except as aforesaid, the Corporation shall not declare any dividend or distribution on any Junior Stock, unless the Corporation shall, concurrently with the declaration of such dividend or distribution on the Junior Stock, declare a like dividend or distribution, as the case may be, on the Series A Preferred Stock in an amount per share equal to (x) the amount of the dividend or distribution per share of Common Stock multiplied by (y) the effective Conversion Rate at the time of such dividend or distribution.

(d) Any dividend or distribution (other than that referenced in Section 2(b)) payable to the holders of the Series A Preferred Stock pursuant to this Section 2 shall be paid to such holders at the same time as the dividend or distribution on the Junior Stock or any other capital stock of the Company by which it is measured is paid.

(e) All dividends or distributions declared upon the Series A Preferred Stock shall be declared pro rata per share.

(f) Any reference to "distribution" contained in this Section 2 shall not be deemed to include any distribution made in connection with or in lieu of any Liquidation Event (as defined below).

(g) Junior Stock" shall mean the Common Stock and any shares of preferred stock of any series or class of the Corporation, whether presently outstanding or hereafter issued, which are junior to the shares of Series A Preferred Stock with respect to (i) the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, (ii) dividends or (iii) voting.

3. Liquidation Preference. (a) In the event of a (i) liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, (ii) a sale or other disposition of all or substantially all of the assets of the Corporation or (iii) any consolidation, merger, combination, reorganization or other transaction in which the Corporation is not the surviving entity or the shares of Common Stock constituting in excess of 50% of the voting power of the Corporation are exchanged for or changed into stock or securities of another entity, cash and/or any other property (a "Merger Transaction") (subparagraphs (i), (ii) and (iii) being collectively referred to as a "Liquidation Event"), after payment or provision for payment of debts and other liabilities of the Corporation, the holders of the Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, whether such assets are capital, surplus, or earnings, before any payment or declaration and setting apart for payment of any amount shall be made in respect of any Junior Stock or any other capital stock of the Company, an amount equal to \$13.00 per share plus an amount equal to all declared and/or unpaid dividends thereon; provided, however, in the case of a Merger Transaction, such \$13.00 per share may be paid in cash, property (valued as provided in Section 3(b)) and/or securities (valued as provided in Section 3(b)) of the entity surviving such Merger Transaction. In the case of property or in the event that any such securities are restricted, the value of such property or securities shall be determined by agreement between the Corporation and the holders of a majority of the shares of Series A Preferred Stock then outstanding. If upon any Liquidation Event, whether voluntary or involuntary, the assets to be distributed to the holders of the Series A Preferred Stock shall be insufficient to permit the payment to such stockholders of the full preferential amounts aforesaid, then all of the assets of the Corporation to be distributed shall be so distributed ratably to the holders of the Series A Preferred Stock on the basis of the number of shares of Series A Preferred Stock held. A consolidation or merger of the Corporation with or into another corporation, other than in a transaction described in this Section 3(a) above, shall not be considered a liquidation, dissolution or winding up of the Corporation or a sale or other disposition of all or substantially all of the assets of the Corporation and, accordingly, the Corporation shall make appropriate provision to ensure that the term of this Certificate of Designations survive any such transaction. All shares of Series A Preferred Stock shall rank as to payment upon the occurrence of any Liquidation Event senior to the Common Stock as provided herein and, unless the terms of such other series shall provide otherwise, senior to all other series of the Corporation's preferred stock.

(b) Any securities or other property to be delivered to the holders of the Series A Preferred Stock pursuant to Section 3(a) hereof shall be valued as follows:

(i) Securities not subject to an investment letter or other similar restriction on free marketability:

(A) If traded on a Securities exchange or on Nasdaq (as defined below), or if actively traded over-the-counter, the value shall be deemed to be the Market Price (as defined below) of the securities as of the date of valuation.

(B) If there is no such active public market for the securities, the value shall be the Fair Market Value (as defined below) of the securities.

A Market Price of a security shall mean the average Closing Bid Price of such Security, for thirty (30) consecutive trading days, ending with the day prior to the date as of which the Market Price is being determined.

A Fair Market Value of any asset (including any security) means the fair market value thereof as mutually determined by the Corporation and the holders of a majority (measured in terms of voting power) of the outstanding shares of Series A Preferred Stock.

The "Closing Bid Price" for any security for each trading day shall be the reported closing bid price of such security on the national securities exchange on which such security is listed or admitted to trading, or, if such security is not listed or admitted to trading on any national securities exchange, shall mean the reported closing bid price of such Security on the Nasdaq SmallCap Market or the Nasdaq National Market System (collectively referred to as "Nasdaq") or, if such security is not listed or admitted to trading on any national securities exchange or quoted on Nasdaq, shall mean the reported closing bid price of such security on the principal securities exchange on which such security is listed or admitted to trading or, if such security is not listed or admitted to trading on a national securities exchange, quoted on Nasdaq or listed or admitted to trading on any other securities exchange, shall mean the closing bid price in the over-the-counter market as furnished by any NASD member firm selected from time to time by the Corporation for that purpose.

"Trading day" shall mean a day on which the securities exchange or Nasdaq used to determine the Closing Bid Price is open for the transaction of business or the reporting of trades or, if the Closing Bid Price is not so determined, a day on which such securities exchange is open for the transaction of business.

(ii) For securities for which there is an active public market but which are subject to an investment letter or other restrictions on free marketability, the value shall be the Fair Market Value thereof, determined by discounting appropriately the Market Price thereof.

(iii) For all other securities, the value shall be the Fair Market Value thereof.

If the holders of a majority of the Series A Preferred Stock and the Corporation are unable to reach agreement on any valuation matter, such valuation shall be submitted to and determined by a nationally recognized independent investment bank selected by the Board of Directors of the Corporation and the holders of a majority of the Series A Preferred Stock (or, if such selection cannot be agreed upon promptly, or in any event within ten days, then such valuation shall be made by a nationally recognized independent investment banking firm selected by the American Arbitration Association in New York City in accordance with its rules), the costs of which valuation shall be paid for by the Corporation.

4. Conversion.

(a) Right of Conversion. The shares of Series A Preferred Stock shall be convertible, in whole or in part, at the option of the holder thereof and upon notice to the Corporation as set forth in Section 4(b) below, into fully paid and nonassessable shares of Common Stock and such other securities and property as hereinafter provided. The initial Conversion price per share of Common Stock is equal to the lesser of (i) \$5.625 and (ii) 85% of the Market Price (as defined in Section 3(b)) of the Common Stock as of the initial closing date of the issuance and sale of the Series A Preferred Stock (the "Conversion Price") and shall be subject to adjustment as provided herein. The rate at which each share of Series A Preferred Stock is convertible at any time into Common Stock (the A Conversion Rate) shall be determined by dividing the then existing Conversion Price into \$10.00.

Subject to adjustment pursuant to the provisions of Section 4(c) below, in the event that the Conversion Price in effect at the time of each Interim Closing Date (as defined below) and the Final Closing Date (as defined below) is greater than 85% of the Market Price (as defined in Section 3(b)) of the Common Stock as of (x) any interim closing date of the issuance and sale of the Series A Preferred Stock (each an "Interim Closing Date") or (y) the final closing date of the issuance and sale of the Series A Preferred Stock (the "Final Closing Date"), pursuant to the subscription agreements entered into in connection therewith, then the Conversion Price shall be adjusted to equal 85% of the lesser of any such Market Price. If there is any change in the Conversion Price as a result of the preceding sentence, then the Conversion Rate shall be changed accordingly as set forth above. For purposes of this Section 4, in the event the prices referenced in the definition of Closing Bid Price in Section 3(b) cannot be determined, the Market Price of the Common Stock shall be deemed to be the Fair Market Value (as defined in Section 3(b)) of the Common Stock as of the date of determination.

The Board of Directors of the Corporation, or a committee designated by it for such purpose, may specify an initial conversion price applicable to the shares of Series A Preferred Stock issued at any closing lower than the initial conversion price that would otherwise obtain pursuant to the preceding paragraphs and, in the event an initial conversion price is so specified, it shall be applicable to all shares of the Series A Preferred Stock.

The Corporation shall prepare a certificate signed by the President, and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary, of the Corporation setting forth the Conversion Rate as of the Final Closing Date, showing in reasonable detail the facts upon which such adjusted Conversion Rate is based, and such certificate shall forthwith be filed with the Transfer Agent (as defined in Section 4(c)(ii)) of the Series A Preferred Stock. A notice stating that the Conversion Rate has been adjusted pursuant to the second preceding paragraph, or that no adjustment is necessary, and setting forth the Conversion Rate in effect as of the Final Closing Date shall be mailed as promptly as practicable after the Final Closing Date by the Corporation to all record holders of the Series A Preferred Stock at their last addresses as they shall appear in the stock transfer books of the Corporation.

The Conversion Price (subject to adjustments pursuant to the provisions of Section 4(c) below) in effect immediately prior to the date that is 12 months after the Final Closing Date of the issuance and sale of the Series A Preferred Stock (the "Reset Date") shall be adjusted and reset effective as of the Reset Date If the Market Price as of the Reset Date (the "12-Month Trading Price") is less than 130% of the then applicable Conversion Price (a "Reset Event"). Upon the occurrence of a Reset Event, the Conversion Price shall be reduced to be equal to the greater of (A) the 12-Month Trading Price divided by 1.3, and (B) 50% of the then applicable Conversion Price. If there is any change in the Conversion Price as a result of the preceding sentence, then the Conversion Rate shall be changed accordingly as set forth above. The Corporation shall prepare a certificate signed by the principal financial officer of the Corporation setting forth the Conversion Rate as of the Reset Date, showing in reasonable detail the facts upon which such Conversion Rate is based, and such certificate shall forthwith be filed with the transfer agent of the Series A Preferred Stock. A notice stating that the Conversion Rate has been adjusted pursuant to this paragraph, or that no adjustment is necessary, and setting forth the Conversion Rate in effect as of the Reset Date shall be mailed as promptly as practicable after the Reset Date by the Corporation to all record holders of the Series A Preferred Stock at their last addresses as they shall appear in the stock transfer books of the Corporation.

(b) Conversion Procedures. Any holder of shares of Series A Preferred Stock desiring to convert such shares into Common Stock shall surrender the certificate or certificates evidencing such shares of Series A Preferred Stock at the office of the Transfer Agent for the Series A Preferred Stock, which certificate or certificates, if the Corporation shall so require, shall be duly endorsed to the Corporation or in blank, or accompanied by proper instruments of transfer to the Corporation or in blank, accompanied by irrevocable written notice to the Corporation that the holder elects so to convert such shares of Series A Preferred Stock and specifying the name or names (with address) in which a certificate or certificates evidencing shares of Common Stock are to be issued. The Corporation need not deem a notice of conversion to be received unless the holder complies with all the provisions hereof. The Corporation will instruct the Transfer Agent (which may be the Corporation) to make a notation of the date that a notice of conversion is received, which date shall be deemed to be the date of receipt for purposes hereof, so long as receipt is prior to 4:00 p.m. Eastern Standard Time on a Trading Day and otherwise shall be deemed to be received on the next following Trading Day.

The Corporation shall, as soon as practicable after such deposit of certificates evidencing shares of Series A Preferred Stock accompanied by the written notice and compliance with any other conditions herein contained, deliver to the person for whose account such shares of Series A Preferred Stock were so surrendered, or to the nominee or nominees of such person, certificates evidencing the number of full shares of Common Stock to which such person shall be entitled as aforesaid, together with a cash adjustment of any fraction of a share as hereinafter provided. Subject to the following provisions of this paragraph, such conversion shall be deemed to have been made as of the date of receipt (in accordance with the third sentence of Section 4(b) hereof) of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the Common Stock deliverable upon conversion of such Series A Preferred Stock shall be treated for all purposes as the record holder or holders of such Common Stock on such date; provided, however, that the Corporation shall not be required to convert any shares of Series A Preferred Stock while the stock transfer books of the Corporation are closed for any purpose, but the surrender of Series A Preferred Stock for conversion during any period while such books are so closed shall become effective for conversion immediately upon the reopening of such books as if the surrender had been made on the date of such reopening, and the conversion shall be at the conversion rate in effect on such date.

All notices of conversion shall be irrevocable; provided, however, that if the Corporation has sent notice of an event pursuant to Section 4(f) hereof, a holder of Series A Preferred Stock may, at its election, provide in its notice of conversion that the conversion of its shares of Series A Preferred Stock shall be contingent upon the occurrence of the record date or effectiveness of such event (as specified by such holder), provided that such notice of conversion is received by the Corporation prior to such record date or effective date, as the case may be.

(c) Adjustment of Conversion Rate and Conversion Price.

(i) Except as otherwise provided herein, in the event the Corporation shall, at any time or from time to time after the date hereof, (1) sell or issue any shares of Common Stock for a consideration per share less than either (i) the Conversion Price in effect on the date of such sale or issuance or (ii) the Market Price of the Common Stock as of the date of the sale or issuance, (2) issue any shares of Common Stock as a stock dividend to the holders of Common Stock, or (3) subdivide or combine the outstanding shares of Common Stock into a greater or lesser number of shares (any such sale, issuance, subdivision or combination being herein called a "Change of Shares"), then, and thereafter upon each further Change of Shares, the Conversion Price in effect immediately prior to such Change of Shares shall be changed to a price (rounded to the nearest cent) determined by multiplying the Conversion Price in effect immediately prior thereto by a fraction, the numerator of which shall be the sum of the number of shares of Common Stock outstanding immediately prior to the sale or issuance of such additional shares or such subdivision or combination and the number of shares of Common Stock which the aggregate consideration received (determined as provided in subsection 4(c)(v)(F) below) for the issuance of such additional shares would purchase at the greater of (i) the Conversion Price in effect on the date of such issuance or (ii) the Market Price as of such date,

and the denominator of which shall be the number of shares of Common Stock outstanding immediately after the sale or issuance of such additional shares or such subdivision or combination. Such adjustment shall be made successively whenever such an issuance is made.

(ii) In case of any reclassification, capital reorganization or other change of outstanding shares of Common Stock, or in case of any consolidation or merger of the Corporation with or into another entity (other than a consolidation or merger in which the Corporation is the continuing entity and which does not result in any reclassification, capital reorganization or other change of outstanding shares of Common Stock other than the number thereof), or in case of any sale or conveyance to another entity of the property of the Corporation as, or substantially as, an entirety (other than a sale/leaseback, mortgage or other financing transaction), the Corporation shall cause effective provision to be made so that each holder of a share of Series A Preferred Stock shall be entitled to receive, upon conversion of such share of Series A Preferred Stock, the kind and number of shares of stock or other securities or property (including cash) receivable upon such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock into which such share of Series A Preferred Stock was convertible immediately prior to such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance. Any such provision shall include provision for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 4(c). The Corporation shall not effect any such reclassification, capital reorganization or other change, consolidation, merger, sale or conveyance unless prior to or simultaneously with the consummation thereof the successor (if other than the Corporation) resulting from such transaction or the entity purchasing assets or other appropriate entity shall assume, by written instrument executed and delivered to the transfer agent for the Series A Preferred Stock (the "Transfer Agent"), the obligation to deliver to the holder of each share of Series A Preferred Stock such shares of stock, securities or assets as, in accordance with the foregoing provisions, such holders may be entitled to receive and the other obligations under this Certificate of Designations. The foregoing provisions shall similarly apply to successive reclassifications, capital reorganizations and other changes of outstanding shares of Common Stock and to successive consolidations, mergers, sales or conveyances.

(iii) If, at any time or from time to time, the Corporation shall issue or distribute to the holders of shares of Common Stock evidence of its indebtedness, any other securities of the Corporation or any cash, property or other assets (excluding an issuance or distribution governed by one of the preceding subsections of this Section 4(c) and also excluding cash dividends or cash distributions paid out of net profits legally available therefor in the full amount thereof (any such non-excluded event being herein called a "Special Dividend")), then in each case the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such Special Dividend as though they were the holders of the number of shares of Common Stock of the Corporation into which their shares of Series A Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such Special Dividend.

(iv) After each adjustment of the Conversion Price pursuant to this Section 4(c), the Corporation will promptly prepare a certificate signed by the President and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary, of the Corporation setting forth: (i) the Conversion Price as so adjusted, (ii) the Conversion Rate corresponding to such conversion and (iii) a brief statement of the facts accounting for such adjustment. The Corporation will promptly file such certificate with the Transfer Agent and cause a brief summary thereof to be sent by ordinary first class mail to each registered holder of Series A Preferred Stock at his last address as it shall appear on the registry books of the Transfer Agent. No failure to mail such notice nor any defect therein or in the mailing thereof shall affect the validity of such adjustment. The affidavit of an officer of the Transfer Agent or the Secretary or an Assistant Secretary of the Corporation that such notice has been mailed shall, in the absence of fraud, be prima facie evidence of the facts stated therein. The Transfer Agent may rely on the information in the certificate as true and correct and has no duty or obligation to independently verify the amounts or calculations set forth therein.

(v) For purposes of Section 4(c)(i) hereof, the following provisions (A) to (F) shall also be applicable:

(A) The number of shares of Common Stock deemed outstanding at any given time shall include all shares of capital stock convertible into or exchangeable for Common Stock and all shares of Common Stock issuable upon the exercise of any convertible debt outstanding on the date hereof, warrants outstanding on the date hereof and options outstanding on the date hereof.

(B) No adjustment of the Conversion Price shall be made unless such adjustment would require an increase or decrease of at least \$0.01 in such price; provided that any adjustments which by reason of this clause (B) are not required to be made shall be carried forward and shall be made at the time of and together with the next subsequent adjustment which, together with any adjustment(s) so carried forward, shall require an increase or decrease of at least \$0.01 in the Conversion Price then in effect hereunder.

(C) In case of (1) the sale or other issuance by the Corporation (including as a component of a unit) of any rights or warrants to subscribe for or purchase, or any options for the purchase of, Common Stock or any securities convertible into or exchangeable for Common Stock (such securities convertible, exercisable or exchangeable into Common Stock being herein called "Convertible Securities"), or (2) the issuance by the Corporation, without the receipt by the Corporation of any consideration therefor, of any rights or warrants to subscribe for or purchase, or any options for the purchase of, Common Stock or Convertible Securities, whether or not such rights, warrants or options, or the right to convert or exchange such Convertible Securities, are immediately exercisable, and the consideration per share for which Common Stock is issuable upon the exercise of such rights, warrants or options or upon the conversion or exchange of such Convertible Securities (determined by dividing (x) the minimum aggregate consideration, as set forth in the instrument relating thereto without regard to any antidilution or similar provisions contained therein for a subsequent adjustment of

such amount, payable to the Corporation upon the exercise of such rights, warrants or options, plus the consideration received by the Corporation for the issuance or sale of such rights, warrants or options, plus, in the case of such Convertible Securities, the minimum aggregate amount, as set forth in the instrument relating thereto without regard to any antidilution or similar provisions contained therein for a subsequent adjustment of such amount, of additional consideration, if any, other than such Convertible Securities, payable upon the conversion or exchange thereof, by (y) the total maximum number, as set forth in the instrument relating thereto without regard to any antidilution or similar provisions contained therein for a subsequent adjustment of such amount, of shares of Common Stock issuable upon the exercise of such rights, warrants or options or upon the conversion or exchange of such Convertible Securities issuable upon the exercise of such rights, warrants or options) is less than either the Conversion Price or the Market Price of the Common Stock as of the date of the issuance or sale of such rights, warrants or options, then such total maximum number of shares of Common Stock issuable upon the exercise of such rights, warrants or options or upon the conversion or exchange of such Convertible Securities (as of the date of the issuance or sale of such rights, warrants or options) shall be deemed to be "Common Stock" for purposes of Section 4(c)(i) hereof and shall be deemed to have been sold for an amount equal to such consideration per share and shall cause an adjustment to be made in accordance with Section 4(c)(i).

(D) In case of the sale by the Corporation of any Convertible Securities, whether or not the right of conversion or exchange thereunder is immediately exercisable, and the price per share for which Common Stock is issuable upon the conversion or exchange of such Convertible Securities (determined by dividing (x) the total amount of consideration received by the Corporation for the sale of such Convertible Securities, plus the minimum aggregate amount, as set forth in the instrument relating thereto without regard to any antidilution or similar provisions contained therein for a subsequent adjustment of such amount, of additional consideration, if any, other than such Convertible Securities, payable upon the conversion or exchange thereof, by (y) the total maximum number, as set forth in the instrument relating thereto without regard to any antidilution or similar provisions contained therein for a subsequent adjustment of such amount, of shares of Common Stock issuable upon the conversion or exchange of such Convertible Securities) is less than either the Conversion Price or the Market Price of the Common Stock as of the date of the sale of such Convertible Securities, then such total maximum number of shares of Common Stock issuable upon the conversion or exchange of such Convertible Securities (as of the date of the sale of such Convertible Securities) shall be deemed to be "Common Stock" for purposes of Section 4(c)(i) hereof and shall be deemed to have been sold for an amount equal to such consideration per share and shall cause an adjustment to be made in accordance with Section 4(c)(i).

(E) In case the Corporation shall modify the rights of conversion, exchange or exercise of any of the securities referred to in (C) and (D) above or any other securities of the Corporation convertible, exchangeable or exercisable for shares of Common Stock, for any reason other than an event that would require adjustment to prevent dilution, so that the consideration per share received by the Corporation after such modification is less than either the Conversion Price or the Market Price as of the date prior to such

modification, then such securities, to the extent not therefore exercised, converted or exchanged, shall be deemed to have expired or terminated immediately prior to the date of such modification and the Corporation shall be deemed for purposes of calculating any adjustments pursuant to this Section 4(c) to have issued such new securities upon such new terms on the date of modification. Such adjustment shall become effective as of the date upon which such modification shall take effect. On the expiration or cancellation of any such right, warrant or option or the termination or cancellation of any such right to convert or exchange any such Convertible Securities, the Conversion Price then in effect hereunder shall forthwith be readjusted to such Conversion Price as would have obtained (a) had the adjustments made upon the issuance or sale of such rights, warrants, options or Convertible Securities been made upon the basis of the issuance of only the number of shares of Common Stock theretofore actually delivered (and the total consideration received therefor) upon the exercise of such rights, warrants or options or upon the conversion or exchange of such Convertible Securities and (b) had adjustments been made on the basis of the Conversion Price as adjusted under clause (a) for all transactions (which would have affected such adjusted Conversion Price) made after the issuance or sale of such rights, warrants, options or Convertible Securities.

(F) In case of the sale of any shares of Common Stock, any Convertible Securities, any rights or warrants to subscribe for or purchase, or any options for the purchase of, Common Stock or Convertible Securities, the consideration received by the Corporation therefor shall be deemed to be the gross sales price therefor without deducting therefrom any expense paid or incurred by the Corporation or any underwriting discounts or commissions or concessions paid or allowed by the Corporation in connection therewith. In the event that any securities shall be issued in connection with any other securities of the Corporation, together comprising one integral transaction in which no specific consideration is allocated among the securities, then each of such securities shall be deemed to have been issued for such consideration as the Board of Directors of the Corporation determines in good faith; provided, however that if holders of in excess of 10% of the then outstanding Series A Preferred Stock disagree with such determination, the Corporation shall retain, at its own expense, an independent investment banking firm for the purpose of obtaining an appraisal.

(vi) Notwithstanding any other provision hereof, no adjustment to the Conversion Price will be made

(A) upon the exercise of any of the options outstanding on the date hereof under the Corporation's existing stock option plans or upon the exercise of any warrants of the Company outstanding on the date hereof; or

(B) upon the issuance or exercise of options which may hereafter be granted with the approval of the Board of Directors, or exercised, under any employee benefit plan of the Company to officers, directors, employees or consultants, but only with respect to such options as are exercisable at prices no lower than the Closing Bid Price (or, if the prices referenced in the definition of Closing Bid Price cannot be determined, the Fair Market Value) of the Common Stock as of the date of grant thereof; or

(C) upon the sale of any shares of Common Stock, warrants to purchase Common Stock or Convertible Securities in a firm commitment underwritten public offering, including, without limitation, shares sold upon the exercise of any overallotment option granted to the underwriters in connection with such offering; or

(D) upon issuance or exercise of the Placement Warrants (as defined in the Placement Agency Agreement between the Company and Paramount Capital, Inc., dated as of March 1, 1997), or upon the issuance or conversion of the Series A Preferred Stock issued (i) on or prior to the Final Closing Date or (ii) pursuant to the exercise of the Placement Warrants; or

(E) upon the issuance or sale of Common Stock or Convertible Securities pursuant to the exercise of any rights, options or warrants to receive, subscribe for or purchase, or any options were the purchase of, Common Stock or Convertible Securities, whether or not such rights, warrants or options were outstanding on the date of the original sale of the Series A Preferred Stock or were thereafter issued or sold, provided that an adjustment was either made or not required to be made in accordance with Section 4(c)(i) in connection with the issuance or sale of such securities or any modification of the terms thereof; or

(F) upon the issuance or sale of Common Stock upon conversion or exchange of any Convertible Securities, provided that any adjustments required to be made upon the issuance or sale of such Convertible Securities or any modification of the terms thereof were so made, and whether or not such Convertible Securities were outstanding on the date of the original sale of the Series A Preferred Stock or were thereafter issued or sold.

Section 4(c)(v)(E) shall nevertheless apply to any modification of the rights of conversion, exchange or exercise of any of the securities referred to in (A) through (C) or, to the extent effected with respect to less than all of the outstanding Series A Preferred Stock, as the case may be, (D) above.

(vii) As used in this Section 4(c), the term "Common Stock" shall mean and include the Corporation's Common Stock authorized on the date of the original issue of the Series A Preferred Stock and shall also include any capital stock of any class of the Corporation thereafter authorized which shall not be limited to a fixed sum or percentage in respect of the rights of the holders thereof to participate in dividends and in the distribution of assets upon the voluntary liquidation, dissolution or winding up of the Corporation; provided, however, that the shares issuable upon conversion of the Series A Preferred Stock shall include only shares of such class designated in the Corporation's Certificate of Incorporation as Common Stock on the date of the original issue of the Series A Preferred Stock or (i), in the case of any reclassification, change, consolidation, merger, sale or conveyance of the character referred to in Section 4(c)(ii) hereof, the stock, securities or property provided for in such Section 4(c)(ii), in the case of any reclassification or change in the outstanding shares of Common Stock issuable upon conversion of the Series A Preferred Stock as a result of a subdivision or combination or

consisting of a change in par value, or from par value to no par value, or from no par value to par value, such shares of Common Stock as so reclassified or changed.

(viii) Any determination as to whether an adjustment in the Conversion Price in effect hereunder is required pursuant to Section 4(c), or as to the amount of any such adjustment, if required, shall be binding upon the holders of the Series A Preferred Stock and the Company if made in good faith by the Board of Directors of the Company.

(d) No Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon conversion of Series A Preferred Stock. If more than one certificate evidencing shares of Series A Preferred Stock shall be surrendered for conversion at one time by the same holder, the number of full shares issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Series A Preferred Stock so surrendered. Instead of any fractional share of Common Stock which would otherwise be issuable upon conversion of any shares of Series A Preferred Stock, the Corporation shall pay a cash adjustment in respect of such fractional interest in an amount equal to the same fraction of the Market Price as of the close of business on the day of conversion.

(e) Reservation of Shares; Transfer Taxes; Etc. The Corporation shall at all times reserve and keep available, out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the conversion of the Series A Preferred Stock, such number of shares of its Common Stock free of preemptive rights as shall be sufficient to effect the conversion of all shares of Series A Preferred Stock from time to time outstanding (including, without limitation, shares of Common Stock issuable upon conversion of the Series A Preferred Stock in the case of a Reset Event). The Corporation shall use its best efforts from time to time, in accordance with the laws of the State of Delaware, to increase the authorized number of shares of Common Stock if at any time the number of shares of authorized, unissued and unreserved Common Stock shall not be sufficient to permit the conversion of all the then-outstanding shares of Series A Preferred Stock.

The Corporation shall pay any and all issue or other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series A Preferred Stock. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue or delivery of Common Stock (or other securities or assets) in a name other than that in which the shares of Series A Preferred Stock so converted were registered, and no such issue or delivery shall be made unless and until the person requesting such issue has paid to the Corporation the amount of such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

(f) Prior Notice of Certain Events. In case:

(i) the Corporation shall declare any dividend (or any other distribution); or

(ii) the Corporation shall authorize the granting to the holders of Common Stock of rights or warrants to subscribe for or purchase any shares of stock of any class or of any other rights or warrants; or

(iii) of any reclassification of Common Stock (other than a subdivision or combination of the outstanding Common Stock, or a change in par value, or from par value to no par value, or from no par value to par value); or

(iv) of any consolidation or merger (including, without limitation, a Merger Transaction) to which the Corporation is a party and for which approval of any stockholders of the Corporation shall be required, or of the sale or transfer of all or substantially all of the assets of the Corporation or of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or other property; or

(v) of the voluntary or involuntary dissolution, liquidation or winding up of the Corporation (including, without limitation, a Liquidation Event);

then the Corporation shall cause to be filed with the Transfer Agent for the Series A Preferred Stock and shall cause to be mailed to the holders of record of the Series A Preferred Stock, at their last addresses as they shall appear upon the stock transfer books of the Corporation, at least 20 days prior to the applicable record date hereinafter specified, a notice stating (x) the date on which a record (if any) is to be taken for the purpose of such dividend, distribution or granting of rights or warrants or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights or warrants are to be determined and a description of the cash, securities or other property to be received by such holders upon such dividend, distribution or granting of rights or warrants or (y) the date on which such reclassification, consolidation, merger, sale, transfer, share exchange, dissolution, liquidation or winding up or other Liquidation Event is expected to become effective, the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such exchange, dissolution, liquidation or winding up or other Liquidation Event and the consideration, including securities or other property, to be received by such holders upon such exchange; provided, however, that no failure to mail such notice or any defect therein or in the mailing thereof shall affect the validity of the corporate action required to be specified in such notice.

(g) Other Changes in Conversion Rate. The Corporation from time to time may increase the Conversion Rate by any amount for any period of time if the period is at least 20 days and if the increase is irrevocable during the period. Whenever the Conversion Rate is so increased, the Corporation shall mail to holders of record of the Series A Preferred Stock a notice of the increase at least 15 days before the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period it will be in effect.

The Corporation may make such increases in the Conversion Rate, in addition to those required or allowed by this Section 4, as shall be determined by it, as evidenced by a

resolution of the Board of Directors, to be advisable in order to avoid or diminish any income tax to holders of Common Stock resulting from any dividend or distribution of stock or issuance of rights or warrants to purchase or subscribe for stock or from any event treated as such for income tax purposes.

Notwithstanding anything to the contrary herein, in no case shall the Conversion Price be adjusted to an amount less than \$0.001 per share, the current par value of the Common Stock into which the Series A Preferred Stock is convertible.

(h) Ambiguities/Errors. The Board of Directors of the Corporation shall have the power to resolve any ambiguity or correct any error in the provisions relating to the convertibility of the Series A Preferred Stock, and its actions in so doing shall be final and conclusive.

5. Mandatory Conversion. At any time on or after the Reset Date, the Corporation, at its option, may cause the Series A Preferred Stock to be converted in whole, or in part, on a pro rata basis, into fully paid and nonassessable shares of Common Stock at the then effective Conversion Rate and such other securities and property as herein provided if the Closing Bid Price of the Common Stock (or, if the prices referenced in the definition of Closing Bid Price cannot be determined, the Fair Market Value (as defined in Section 3(b)) of the Common Stock) shall have exceeded 200% of the then applicable Conversion Price for at least 20 trading days in any 30 consecutive trading day period ending 3 days prior to the date of notice of conversion. Any shares of Series A Preferred Stock so converted shall be treated as having been surrendered by the holder thereof for conversion pursuant to Section 4 on the date of such mandatory conversion (unless previously converted at the option of the holder).

Not more than 60 nor less than 20 days prior to the date of any such mandatory conversion, notice by first class mail, postage prepaid, shall be given to the holders of record of the Series A Preferred Stock to be converted, addressed to such holders at their last addresses as shown on the stock transfer books of the Corporation. Each such notice shall specify the date fixed for conversion, the place or places for surrender of shares of Series A Preferred Stock, and the then effective Conversion Rate pursuant to Section 4.

Any notice which is mailed as herein provided shall be conclusively presumed to have been duly given by the Corporation on the date deposited in the mail, whether or not the holder of the Series A Preferred Stock receives such notice; and failure properly to give such notice by mail, or any defect in such notice, to the holders of the shares to be converted shall not affect the validity of the proceedings for the conversion of any other shares of Series A Preferred Stock. On or after the date fixed for conversion as stated in such notice, each holder of shares called to be converted shall surrender the certificate evidencing such shares to the Corporation at the place designated in such notice for conversion. Notwithstanding that the certificates evidencing any shares of Series A Preferred Stock properly called for conversion shall not have been surrendered, the shares of Series A Preferred Stock shall no longer be deemed outstanding and all rights whatsoever with respect to the shares of Series A Preferred

Stock so called for conversion (except the right of the holders to convert such shares of Series A Preferred Stock upon surrender of their certificates therefor) shall terminate.

6. Voting Rights.

(a) General. Except as otherwise provided herein, in the Certificate of Incorporation to the Bylaws of the Corporation, the holders of shares of Series A Preferred Stock, the holders of shares of Common Stock and the holders of any other class or series of shares entitled to vote with the Common Stock shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation. In any such vote, each share of Series A Preferred Stock shall entitle the holder thereof to cast the number of votes equal to the number of votes which could be cast in such vote by a holder of the Common Stock into which such share of Series A Preferred Stock is convertible on the record date for such vote, or if no record date has been established, on the date such vote is taken. Any shares of Series A Preferred Stock held by the Corporation or any entity controlled by the Corporation shall not have voting rights hereunder and shall not be counted in determining the presence of a quorum.

(b) Class Voting Rights. In addition to any vote specified in Section 6(a), so long as at least 50% of the shares of Series A Preferred Stock (including those shares of Series A Preferred Stock issued or issuable upon the exercise of the warrants issued to Paramount Capital, Inc., the placement agent in connection with the offer and sale of the Series A Preferred Stock) shall be outstanding, the affirmative vote or consent of the holders of at least 66.67% of all outstanding Series A Preferred Stock voting separately as a class shall be necessary to permit, effect or validate any one or more of the following: (i) the amendment, alteration or repeal of any provision of the Certificate of Incorporation or the Bylaws of the Corporation so as adversely to affect the relative rights, preferences, qualifications, limitations or restrictions of the Series A Preferred Stock, (ii) the declaration or payment of any dividend or distribution on any securities of the Corporation other than the Series A Preferred Stock pursuant to and in accordance with the provisions of this Certificate of Designations, or the authorization of the repurchase of any securities of the Corporation, (iii) the issuance of any debt securities or the incurrence of indebtedness for borrowed money in excess of \$1,000,000, provided, however, that any issuance of debt securities or incurrence of indebtedness for borrowed money in excess of \$500,000 shall be approved by a supermajority of the Board of Directors of the Corporation, (iv) the authorization, issuance or increase of any security ranking prior to, or on a parity with, the Series A Preferred Stock (A) upon a Liquidation Event, (B) with respect to the payment of any dividends or distributions or (C) with respect to voting rights (except for class voting rights required by law), (v) the approval of any liquidation, dissolution or sale of substantially all of the assets of the Corporation, (vi) the approval of the incorporation of any subsidiary company or (vii) the approval of any transactions between the Corporation and its affiliates (other than transactions between the Corporation and its subsidiaries in the ordinary course of business). The vote as contemplated herein shall specifically not be required for (x) issuances of Common Stock, (y) the authorization, issuance or increase in the amount of the Series A Preferred Stock prior to the Final Closing Date or (z) any consolidation or merger of the Corporation with or into another corporation in which the Corporation is not the surviving

entity, a sale or transfer of all or part of the Corporation's assets for cash, securities or other property, or a compulsory share exchange.

7. Outstanding Shares. For purposes of this Certificate of Designations, all shares of Series A Preferred Stock shall be deemed outstanding except (i) from the date, or the deemed date, of surrender of certificates evidencing shares of Series A Preferred Stock, all shares of Series A Preferred Stock converted into Common Stock, (ii) from the date of registration of transfer, all shares of Series A Preferred Stock held of record by the Corporation or any subsidiary of the Corporation and (iii) any and all shares of Series A Preferred Stock held in escrow prior to delivery of such stock by the Corporation to the initial beneficial owners thereof.

8. Status of Acquired Shares. Shares of Series A Preferred Stock received upon conversion pursuant to Section 4 or Section 5 or otherwise acquired by the Corporation will be restored to the status of authorized but unissued shares of Preferred Stock, without designation as to class, and may thereafter be issued, but not as shares of Series A Preferred Stock.

9. Preemptive Rights. The Series A Preferred Stock is not entitled to any preemptive or subscription rights in respect of any securities of the Corporation.

10. No Amendment or Impairment. The Corporation shall not amend its Certificate of Incorporation or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in carrying out all such action as may be reasonably necessary or appropriate in order to protect the rights of the holders of the Series A Preferred Stock against impairment.

11. Severability of Provisions. Whenever possible, each provision hereof shall be interpreted in a manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating or otherwise adversely affecting the remaining provisions hereof. If a court of competent jurisdiction should determine that a provision hereof would be valid or enforceable if a period of time were extended or shortened or a particular percentage were increased or decreased, then such court may make such change as shall be necessary to render the provision in question effective and valid under applicable law.

IN WITNESS WHEREOF, Atlantic Pharmaceuticals, Inc. has caused this Certificate to be signed on its behalf by J.D. Lindjord, its President and Chief Executive Officer, this 22nd day of May, 1997.

ATLANTIC PHARMACEUTICALS, INC.

By: /s/ J.D. Lindjord

Name: J.D. Lindjord

Title: President and Chief Executive Officer

ATTEST:

Secretary