

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CHANGE OF NAME
CONVEYING PARTY DATA	
Name	Execution Date
Ribozyme Pharmaceuticals, Inc.	04/16/2003
RECEIVING PARTY DATA	
Name:	Sima Therapeutics, Inc.
Street Address:	1700 Owens Street, 4th Floor
City:	San Francisco
State/Country:	CALIFORNIA
Postal Code:	94158
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11166717
CORRESPONDENCE DATA	
Fax Number:	(415)512-7022
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Email:	Marilyn_Moy@merck.com
Correspondent Name:	Merck & Co., Inc.
Address Line 1:	1700 Owens Street, 4th Floor
Address Line 4:	San Francisco, CALIFORNIA 94158
ATTORNEY DOCKET NUMBER:	SIR-MIS-00003-US-DIV
NAME OF SUBMITTER:	Marilyn Moy
Total Attachments: 21 source=RibozymeAssignment3USDIV#page1.tif source=RibozymeAssignment3USDIV#page2.tif source=RibozymeAssignment3USDIV#page3.tif source=RibozymeAssignment3USDIV#page4.tif source=RibozymeAssignment3USDIV#page5.tif source=RibozymeAssignment3USDIV#page6.tif	

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RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Ribozyme Pharmaceuticals, Inc.

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: Sirna Therapeutics, Inc.

Internal Address: _____

Street Address: 1700 Owens Street, 4th Floor

City: San Francisco

State: CA

Country: USA Zip: 94158

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 4/16/03

- Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s):

This document is being filed together with a new application.

A. Patent Application No.(s)

11/166,717

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Merck & Co., Inc., IP Group

Internal Address: _____

Street Address: 1700 Owens Street, 4th Floor

City: San Francisco

State: CA Zip: 94158

Phone Number: 415.512.7200

Fax Number: 415.512.7022

Email Address: _____

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40

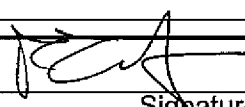
- Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

Deposit Account Number 50-4615

Authorized User Name Peter Haerberli

9. Signature:


Signature

16 April 2009
Date

Peter Haerberli

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

20

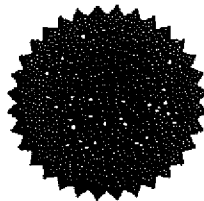
Delaware

PAGE 1

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "RIBOZYME PHARMACEUTICALS, INC.", CHANGING ITS NAME FROM "RIBOZYME PHARMACEUTICALS, INC." TO "SIRNA THERAPEUTICS, INC.", FILED IN THIS OFFICE ON THE SIXTEENTH DAY OF APRIL, A.D. 2003, AT 5:43 O'CLOCK P.M.

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



Harriet Smith Windsor
Harriet Smith Windsor, Secretary of State

2286195 8100

AUTHENTICATION: 2370285

030251419

DATE: 04-16-03

PATENT
REEL: 022559 FRAME: 0563

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

OF

RIBOZYME PHARMACEUTICALS, INC.

Ribozyme Pharmaceuticals, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

1. This name of the Corporation is Ribozyme Pharmaceuticals, Inc. The date of filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware was January 27, 1992.
2. The Corporation amended its Certificate of Incorporation by filing an Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware on April 17, 1996.
3. This Amended and Restated Certificate of Incorporation restates, integrates, and further amends the provisions of the Amended and Restated Certificate of Incorporation of the Corporation.
4. This Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the Delaware General Corporation Law.
5. The text of this Amended and Restated Certificate of Incorporation is as follows:

I.

Name of Corporation. The new name of this corporation is Sirna Therapeutics, Inc.

II.

Address of Corporation and Agent. The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, and the name of the registered agent of the Corporation in the State of Delaware at such address is The Corporation Trust Company.

III.

Purpose. The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

ny-466384

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:48 PM 04/16/2003
FILED 08:48 PM 04/16/2003
SRV 030261419 - 2286196 FILE

IV.

A. Authorized Shares. This corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is Sixty-five million 65,000,000 shares. Sixty million 60,000,000 shares shall be Common Stock, each having a par value of \$0.01. Five million (5,000,000) shares shall be Preferred Stock, each having a par value of \$0.01.

The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby authorized, by filing a certificate (a "Preferred Stock Designation") pursuant to the Delaware General Corporation Law, to fix or alter from time to time the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions of any wholly unissued series of Preferred Stock, and to establish from time to time the number of shares constituting any such series or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

B. Series A Convertible Exchangeable Preferred Stock. All cross-references in each subparagraph of this Section B of Article IV refer to other subparagraphs in this Section B of Article IV unless otherwise indicated.

(1) Series A Preferred Shares Designation. 25,000 shares of Preferred Stock shall be designated and known as the "Series A Preferred Stock." Such number of shares may be increased or decreased by resolution of the Board of Directors of the Corporation after obtaining the consent of a majority in interest of the holder(s) of the then-outstanding shares of Series A Preferred Stock; provided, that no decrease shall reduce the number of shares of Series A Preferred Stock to a number less than the number of shares then outstanding plus the number of such shares issuable upon exercise of outstanding rights, options or warrants or upon conversion of outstanding securities issued by the Corporation.

(2) Dividend Provisions. Each share of Series A Preferred Stock, for a period of six years from the date of first issuance of the Series A Preferred Stock, shall be entitled to receive a mandatory dividend equal to 6.0% per year of the Original Issue Price (as defined below) thereof. Such dividend shall (1) compound on a semi-annual basis, the first compounding to commence six months from January 7, 2000, and (2) be payable semi-annually on each succeeding six and 12-month anniversary of the first issuance, solely by the issuance of additional shares of Series A Preferred Stock, at a price per share equal to the Original Issue Price thereof, and not in cash. Fractional shares of Series A Preferred Stock shall be issuable for purposes hereunder.

(3) Seniority; Liquidation Preference.

- a) The Series A Preferred Stock, as to its liquidation preference, shall rank senior to or pari passu with any future class or series of Preferred Stock issued by the Company; pari passu with the Series

B Convertible Preferred Stock, par value \$0.01 per share (the "Series B Preferred Stock"), and senior to the Company's Common Stock.

- b) In the event of any liquidation, dissolution or winding-up of the affairs of the Corporation, whether voluntary or involuntary, (collectively, a "Liquidation"), before any payment of cash or distribution of other property shall be made to the holders of the Common Stock or any other class or series of stock subordinate in liquidation preferences to the Series A Preferred Stock, the holders of the Series A Preferred Stock and the Series B Preferred Stock, on a pro rata basis based on their aggregate liquidation preferences then outstanding, shall be entitled to receive out of the assets of the Corporation legally available for distribution to its shareholders, the Original Issue Price per share (as appropriately adjusted for any combinations or divisions or similar recapitalizations affecting the Series A Preferred Stock after issuance) and accrued and unpaid dividends thereon (the "Series A Liquidation Preference"). As used herein, the "Original Issue Price" per share is \$1,000.
- c) If, upon any Liquidation, the assets of the Corporation available for distribution to its shareholders shall be insufficient to pay the holders of the Series A Preferred Stock and the Series B Preferred Stock the full amounts to which they shall be entitled, the holders of the Series A Preferred Stock and the Series B Preferred Stock shall share ratably (based on their respective outstanding aggregate liquidation preferences) in any distribution of assets in proportion to the respective amounts which would be payable to them in respect of the shares held by them if all amounts payable to them in respect of such were paid in full pursuant to Section 3(b).
- d) After the distributions described in Section 3(c) above have been paid, subject to the rights of other series of preferred stock that exist or may from time to time come into existence, the remaining assets of the Corporation available for distribution to shareholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by each.

(4) Conversion. The holders of the Series A Preferred Stock shall have conversion rights (the "Series A Conversion Right"), through and including date that is six years after the first issuance of the Series A Preferred Stock (the "Conversion Termination Date"):

- a) Right to Convert.
- (1) Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time after October 7, 2002, at the office of the Corporation or any transfer

agent for such stock, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing (x) the sum of the Original Issue Price of such share of Series A Preferred Stock and all accrued and unpaid dividends thereon by (y) the Series A Conversion Price (as defined below). The "Series A Conversion Price" shall be (w) \$12.00; provided, that such conversion occurs on or prior to the date that is three years after the date of issuance, (x) \$13.20; provided, that such conversion occurs after the date that is three years after the date of issuance but on or prior to the date that is four years after the date of issuance, (y) \$14.40; provided, that such conversion occurs after the date that is four years after the date of issuance but on or prior to the date that is five years after the date of issuance and (z) \$15.00; provided, that such conversion occurs after the date that is five years after the date of issuance (and the Series A Conversion Price shall be subject to adjustment as set forth below in this Section 4(a)). Notwithstanding the above, the holder(s) of the Series A Preferred Stock shall have the right, at the option of such holder(s), at any time within the two-year period after the issuance thereof, to cause the Company automatically to convert the Series A Preferred Stock into shares of Common Stock at the Series A Conversion Price then in effect, upon the occurrence of any of the following: (i) a merger, consolidation or similar transaction involving the Corporation or (ii) the transactions involving the Corporation in a share-for-share merger or similar transaction.

- (2) Before any holder of Series A Preferred Stock shall be entitled to convert such shares into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series A Preferred Stock, and shall give written notice to the Corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series A Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as set forth above. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of

such surrender of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date.

- (3) In the event the Corporation should at any time fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof) or with payment that is less than the Series A Conversion Price then in effect, then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Series A Conversion Price of the Series A Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of (a) shares of Common Stock outstanding and (b) those issuable with respect to such Common Stock Equivalents, with the number of shares issuable with respect to Common Stock Equivalents determined from time to time as provided in Section 4(a)(5) below.
- (4) If the number of shares of Common Stock outstanding at any time is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Series A Conversion Price for the Series A Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.
- (5) The following provisions shall apply for purposes of this Section 4(a):

(a) The aggregate maximum number of shares of Common Stock deliverable upon conversion or exercise of Common Stock Equivalents (assuming the satisfaction of any conditions to convertibility or exercisability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) shall be deemed to have been issued at the time such Common Stock Equivalents were issued.

(b) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to the Corporation upon conversion or exercise of such Common Stock Equivalents including, but not limited to, a change resulting from the antidilution provisions thereof, the Series A Conversion Price of the Series A Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(c) Upon the termination or expiration of the convertibility or exercisability of any such Common Stock Equivalents, the Series A Conversion Price of the Series A Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and Common Stock Equivalents which remain convertible or exercisable) actually issued upon the conversion or exercise of such Common Stock Equivalents.

(5) Exchange Right. Provided that (a) all of the shares of Series A Preferred Stock initially issued and sold by the Corporation to Elan International Services, Ltd., a Bermuda exempted limited liability company ("EIS"), have not been converted, as provided in Section 4 above, and (b) the Exchange Termination Date (as defined below) shall not have occurred, the holders of the Series A Preferred Stock (acting by act of the majority holders thereof) shall have the right to exchange all of their shares of Series A Preferred Stock (the "Exchange Right") of the Corporation for initially 3,612 shares of non-voting convertible preferred shares (the "Preferred Shares") (as adjusted for any combinations or divisions or similar recapitalizations) of Medizyme Pharmaceutical Ltd., a Bermuda exempted limited liability company ("Newco"), held by the Corporation, so that, in any event, after giving effect to the exercise of the Exchange Right, EIS and the Corporation will each hold 50% of the total outstanding share capital of Newco, on a fully diluted basis, assuming that neither EIS nor the Corporation has sold any shares of Newco. Upon exercise of the Exchange Right, the Preferred Shares held by the Corporation shall be transferred legally and beneficially to EIS.

The rights of the holders to exercise the Exchange Right shall commence at any time after October 7, 2002 and shall terminate and be of no further force and effect on the date that is the later of (i) seven months thereafter and (ii) the completion of Newco's development period, as agreed in the business plan of Newco and as set forth in the Subscription, Joint Development and Operating Agreement dated as of January 7, 2000, among Elan Pharmaceuticals Technologies, a division, of Elan Corporation, plc, an Irish public limited company, EIS, Elan Pharma International Limited, an Irish corporation ("EPIL"), Newco and the Corporation (the "Exchange Termination Date").

Upon exercise of the Exchange Right, the shares of Series A Preferred Stock originally purchased from the Corporation, but not including any of the accrued and unpaid dividends thereon (all of which shall remain outstanding), shall be canceled and shall no longer be entitled to any rights in the Corporation. If any shares of the Series A Preferred Stock (other than shares in respect of accrued dividends) are converted pursuant to Section 4(a), to shares of Common Stock, the Exchange Right with respect to the shares of Series A Preferred Stock originally purchased from the Corporation, but not including any of the accrued and unpaid dividends thereon, shall be canceled and shall no longer be entitled to any rights in the Corporation. In order to exercise the Exchange Right, the holders shall provide written notice thereof to the Corporation, setting forth (a) the fact that such holders intend to exercise the Exchange Right, and (b) the proposed date for such exercise (the "Exercise Date"), which shall be between 10 and 30 days after the date of such notice. On the Exercise Date, (y) the holders shall tender their shares of Series A Preferred Stock to the Corporation for cancellation, and (z) the Corporation shall cause to be delivered to BIS, acting on behalf of such holders, such shares of Newco. The holders and the Corporation shall take all other necessary or appropriate actions in connection with or to effect such closing. Section 5(e) of the Securities Purchase Agreement, dated as of January 7, 2000, between BIS and the Corporation contains certain additional provisions relating to the Exchange Right.

(6) Other Distributions. On or prior to the Conversion Termination Date, in the event the Corporation shall declare a distribution payable in securities of other entities, evidences of indebtedness issued by the Corporation or other entities, assets (excluding cash dividends) or options or rights not referred to in Section 4, then, in each such case for the purpose of this Section 6, the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such distribution 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 would be convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

(7) Recapitalizations. On or prior to the Conversion Termination Date, if at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets provided for in Section 3 or Section 4 hereof) provision shall be made so that the holders of the Series A Preferred Stock shall thereafter be entitled to receive upon conversion of the Series A Preferred Stock the number of shares of stock or other securities or property of the Corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of Section 4 with respect to the rights of the holders of the Series A Preferred Stock after the recapitalization to the end that the provisions of Section 4 (including adjustment of the Series A Conversion Price then in effect and the number of shares purchasable upon conversion of the Series A Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(8) No Impairment. The Corporation will not, by amendment of Certificate of Incorporation or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issuance or sale of securities or any other voluntary action, avoid or seek 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 the carrying out of all the provisions hereof and in the taking of all such action as may be necessary or appropriate in order to protect the Series A Conversion Right and Exchange Right of the holders of the Series A Preferred Stock against impairment.

(9) No Fractional Shares and Certificate as to Adjustments.

- a) No fractional shares shall be issued upon the conversion of any share or shares of the Series A Preferred Stock, and the number of shares of Common Stock to be issued shall be rounded to the nearest whole share. Whether or not fractional shares are issuable upon such conversion shall be determined on the basis of the aggregate number of shares of Series A Preferred Stock each holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable to each such holder upon such conversion.
- b) Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price pursuant to Section 4, the Corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of shares of Series A Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Series A Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustment and readjustment, (ii) the Series A Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of a share of Series A Preferred Stock.

(10) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred Stock, such number of its shares of Common Stock that shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock not otherwise reserved for issuance shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred Stock, in addition to such other remedies as shall be available to the holders of such Series A Preferred Stock, the Corporation will take such corporate action that may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to its Certificate of Incorporation.

(11) Notice. Any notice required by the provisions hereof to be given to the holders of shares of Series A Preferred Stock shall be deemed given on the date of service if served personally on the party to whom notice is to be given, or on the date of transmittal of services by facsimile transmission to the party to whom notice is to be given, and addressed to each holder of record at his address appearing on the books of the Corporation.

(12) Voting Rights. Subject to Section 13 below, holders of Series A Preferred Stock shall not be entitled to vote, including with respect to the election of directors of the Corporation.

(13) Protective Provisions. Subject to the rights of any series of preferred stock that exist or may from time to time come into existence, so long as any shares of Series A Preferred Stock are outstanding, the Corporation shall not without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then-outstanding shares of Series A Preferred Stock, voting separately as a series:

- a) amend its Certificate of Incorporation so as to affect adversely the shares of Series A Preferred Stock or any holder thereof (including by creating any additional classes or series of preferred stock with a liquidation preference or other rights senior to the Series A Preferred Stock); or
- b) change the rights of the holders of the Series A Preferred Stock in any other respect.

(14) Status of Converted Stock. In the event any shares of Series A Preferred Stock shall be converted pursuant to Section 4 or exchanged pursuant to Section 5 hereof, the shares so converted or exchanged shall be canceled and shall not be reissuable by the Corporation. The Certificate of Incorporation of the Corporation shall be appropriately amended to effect the corresponding reduction in the Corporation's authorized capital stock.

(15) Term. In the event that the Series A Preferred Stock shall not have been converted into shares of Common Stock or exchanged, as provided in Section 5 above, on or prior to the date that is the later of (A) six years after the date hereof and (B) the Exchange Termination Date, the Series A Preferred Stock shall either, at the option of the Corporation, (i) remain outstanding or (ii) be repaid in amount equal to the Series A Liquidation Preference plus accrued dividends thereon, in cash or by the issuance of shares at the Corporation's Common Stock based on the then-current Conversion Price.

C. Series B Convertible Preferred Stock. All cross-references in each subparagraph of this Section C of Article IV refer to other subparagraphs in this Section C of Article IV unless otherwise indicated.

(1) Designation. 25,000 shares of Preferred Stock shall be designated and known as the "Series B Preferred Stock." Such number of shares may be increased or decreased by resolution of the Board of Directors of the Corporation after obtaining the consent of a majority in interest of the holder(s) of the then-outstanding shares of Series B Preferred Stock; provided, that no decrease shall reduce the number of shares of Series B Preferred Stock to a

number less than the number of shares then outstanding plus the number of such shares issuable upon exercise of outstanding rights, options or warrants or upon conversion of outstanding securities issued by the Corporation.

(2) Dividend Provisions. Each share of Series B Preferred Stock, for a period of six years from the date of first issuance of the Series B Preferred Stock shall be entitled to receive a mandatory dividend equal to 12.0% per year of the Original Issue Price (as defined below) thereof. Such dividend shall (1) compound on a semi-annual basis, the first compounding to commence six months from the date hereof, and (2) be payable semi-annually on each succeeding six and 12-month anniversary of the first issuance, solely by the issuance of additional shares of Series B Preferred Stock, at a price per share equal to the Original Issue Price thereof, and not in cash. Fractional shares of Series B Preferred Stock shall be issuable for purposes hereunder.

(3) Seniority; Liquidation Preference.

- a) The Series B Preferred Stock, as to its liquidation preference, shall rank senior to or pari passu with any existing or future class or series of Preferred Stock issued by the Company, pari passu with the Series A Preferred Stock; and senior to the Company's Common Stock.
- b) In the event of any Liquidation (as defined in Section B of Article IV hereof), before any payment of cash or distribution of other property shall be made to the holders of the Common Stock or any other class or series of stock subordinate in liquidation preference to the Series B Preferred Stock, the holders of the Series A Preferred Stock and Series B Preferred Stock, on a pro rata basis based on their aggregate liquidation preferences then outstanding shall be entitled to receive out of the assets of the Corporation legally available for distribution to its shareholders, the Original Issue Price per share (as appropriately adjusted for any combinations or divisions or similar recapitalizations affecting the Series B Preferred Stock after issuance) and accrued and unpaid dividends thereon (the "Series B Liquidation Preference"). As used herein, the "Original Issue Price" per share is \$1,000.
- c) If, upon any Liquidation, the assets of the Corporation available for distribution to its shareholders shall be insufficient to pay the holders of the Series A Preferred Stock and Series B Preferred Stock the full amounts to which they shall be entitled, the holders of the Series A Preferred Stock and Series B Preferred Stock shall share ratably (based on their respective outstanding aggregate liquidation preferences) in any distribution of assets in proportion to the respective amounts which would be payable to them in

respect of the shares held by them if all amounts payable to them in respect of such were paid in full pursuant to Section 3(b).

- d) After the distributions described in Section 3(e) above have been paid, subject to the rights of other series of preferred stock that exist or may from time to time come into existence, the remaining assets of the Corporation available for distribution to shareholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by each.

(4) Conversion. The holders of the Series B Preferred Stock shall have conversion rights (the "Series B Conversion Right"), through and including the date that is six years after the first issuance of any shares of Series B Preferred Stock (the "Conversion Termination Date").

a) Right to Convert.

- (1) Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time, at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing (x) the sum of the Original Issue Price of such share of Series B Preferred Stock and all accrued and unpaid dividends thereon by (y) the Series B Conversion Price (as defined below). The "Series B Conversion Price" shall for each issue of Series B Preferred Stock be a price equal to 150% of the average closing price of the Common Stock for the 60 trading days prior to the date of written notice of such purchase request of the Company for the purchase of such issue of Series B Preferred Stock.
- (2) Before any holder of Series B Preferred Stock shall be entitled to convert such shares into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series B Preferred Stock, and shall give written notice to the Corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series B Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to

which such holder shall be entitled as set forth above. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Series B Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date.

- (3) In the event the Corporation should at any time fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or Common Stock Equivalents without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof) or with payment that is less than the Series B Conversion Price then in effect, then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Series B Conversion Price of the Series B Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of (a) shares of Common Stock outstanding and (b) those issuable with respect to such Common Stock Equivalents, with the number of shares issuable with respect to Common Stock Equivalents determined from time to time as provided in Section 4(a)(5) below.
- (4) If the number of shares of Common Stock outstanding at any time is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Series B Conversion Price for the Series B Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.
- (5) The following provisions shall apply for purposes of this Section 4(a):
- (a) The aggregate maximum number of shares of Common Stock deliverable upon conversion or exercise

of Common Stock Equivalents (assuming the satisfaction of any conditions to convertibility or exercisability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) shall be deemed to have been issued at the time such Common Stock Equivalents were issued.

(b) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to the Corporation upon conversion or exercise of such Common Stock Equivalents including, but not limited to, a change resulting from the antidilution provisions thereof, the Series B Conversion Price of the Series B Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(c) Upon the termination or expiration of the convertibility or exercisability of any such Common Stock Equivalents, the Series B Conversion Price of the Series B Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and Common Stock Equivalents which remain convertible or exercisable) actually issued upon the conversion or exercise of such Common Stock Equivalents.

(5) **Exchange Right.** In the event that EIS (as defined in Section B of Article IV hereof) shall have exercised the Exchange Right (as defined in Section B of Article IV hereof), EIS shall, at its option, within 30 days thereof, (i) cause to be paid to the Corporation, an amount equal to 30.1% of the aggregate amount of the Development Funding (as such term is defined in the Funding Agreement, dated as of January 7, 2000, among EIS, Newco, BPH, the Corporation and Elan (as such terms are defined in Section B of Article IV hereof) to date provided by each of the parties Newco), in accordance with the terms of the Funding Agreement, including any accrued and unpaid interest and/or dividends paid to EIS thereon, from and after the date hereof and until the date of such exercise, or (ii) surrender for cancellation, including any accrued and unpaid interest and/or dividends thereon paid to EIS, a portion of each issuance of Series B Preferred Stock having an aggregate Original Issue Price equal to 30.1% of the total amount of Development Funding provided by each of the parties to Newco, in accordance with the terms of the Funding Agreement in connection with the issuance of such Series B Preferred Stock, from and after the date hereof and until the date of the exercise of the Exchange Right, against the outstanding Series B Preferred Stock, if any, and/or the convertible promissory note

dated as of January 7, 2000 by the Corporation in favor of EIS in the original principal amount of \$12.015 million or (iii) effect a combination of (i) and (ii) above if applicable.

(6) Other Distributions. On or prior to the Conversion Termination Date, in the event the Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in Section 4, then, in each such case for the purpose of this Section 6, the holders of the Series B Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of the Corporation into which their shares of Series B Preferred Stock would be convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

(7) Recapitalizations. On or prior to the Conversion Termination Date, if at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets provided for in Section 3 or Section 4 hereof) provision shall be made so that the holders of the Series B Preferred Stock shall thereafter be entitled to receive upon conversion of the Series B Preferred Stock the number of shares of stock or other securities or property of the Corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of Section 4 with respect to the rights of the holders of the Series B Preferred Stock after the recapitalization to the end that the provisions of Section 4 (including adjustment of the Series B Conversion Price then in effect and the number of shares purchasable upon conversion of the Series B Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(8) No Impairment. The Corporation will not, by amendment of its Certificate of Incorporation or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issuance or sale of securities or any other voluntary action, avoid or seek 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 the carrying out of all the provisions hereof and in the taking of all such action as may be necessary or appropriate in order to protect the Series B Conversion Rights and Exchange Right of the holders of the Series B Preferred Stock against impairment.

(9) No Fractional Shares and Certificate as to Adjustments.

- a) No fractional shares shall be issued upon the conversion of any share or shares of the Series B Preferred Stock, and the number of shares of Common Stock to be issued shall be rounded to the nearest whole share. Whether or not fractional shares are issuable upon such conversion shall be determined on the basis of the aggregate number of shares of Series B Preferred Stock each holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable to each such holder upon such conversion.

- b) Upon the occurrence of each adjustment or readjustment of the Series B Conversion Price pursuant to Section 4, the Corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of shares of Series B Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Series B Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustment and readjustment, (ii) the Series B Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of a share of Series B Preferred Stock.

(10) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series B Preferred Stock, such number of its shares of Common Stock that shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series B Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock not otherwise reserved for issuance shall not be sufficient to effect the conversion of all then outstanding shares of the Series B Preferred Stock, in addition to such other remedies as shall be available to the holders of such Series B Preferred Stock, the Corporation will take such corporate action that may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to its Certificate of Incorporation.

(11) Notices. Any notice required by the provisions hereof to be given to the holders of shares of Series B Preferred Stock shall be deemed given on the date of service if served personally on the party to whom notice is to be given, or on the date of transmittal of services by facsimile transmission to the party to whom notice is to be given, and addressed to each holder of record at his address appearing on the books of the Corporation.

(12) Repurchases or Redemptions of the Series B Preferred Stock. (a) The Series B Preferred Stock shall be redeemable, in whole or in part (in increments of at least \$250,000), at the option of the Corporation for cash at 100% of the Original Issue Price plus accrued dividends (the "Redemption Price"), so long as all of the amounts provided to be funded as set forth in the Securities Purchase Agreement, dated as of January 7, 2000, between EIS and the Corporation, have been funded or the Corporation has waived its right to any additional funding. Any shares of Series B Preferred Stock called for redemption shall no longer be entitled to the Conversion Right.

(b) The Corporation shall notify the holders of the Series B Preferred Stock in writing setting forth (a) the terms of the redemption of the Series B Preferred Stock, and (b) the

proposed date for such redemption (the "Redemption Date"), which shall be between 10 and 30 days after the date of such notice. On the Redemption Date, (x) the Corporation shall pay in cash an amount equal to the Redemption Price to the holders of the Series B Preferred Stock by check or wire transfer to an account designated by such holders, and (y) the holders shall tender their shares of Series B Preferred Stock, subject to the redemption, to the Corporation, for cancellation. The holders and the Corporation shall take all other necessary or appropriate actions in connection with or to effect such closing.

(13) Voting Rights. Subject to Section 14 below, holders of Series B Preferred Stock shall not be entitled to vote, including with respect to the election of directors of the Corporation.

(14) Protective Provisions. Subject to the rights of any series of preferred stock that exists or may from time to time come into existence, so long as any shares of Series B Preferred Stock are outstanding, the Corporation shall not without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then-outstanding shares of Series B Preferred Stock, voting separately as a series:

- a) amend its Certificate of Incorporation so as to affect adversely the shares of Series B Preferred Stock or any holder thereof (including by creating any additional classes or series of preferred stock with a liquidation preference or other rights senior to with the Series B Preferred Stock); or
- b) change the rights of the holders of the Series B Preferred Stock in any other respect.

(15) Status of Converted Stock. In the event any shares of Series B Preferred Stock shall be converted pursuant to Section 4, the shares so converted or exchanged shall be canceled and shall not be reissuable by the Corporation. The Certificate of Incorporation of the Corporation shall be appropriately amended to effect the corresponding reduction in the Corporation's authorized capital stock.

(16) Term. In the event that the Series B Preferred Stock shall not have been converted into shares of Common Stock or exchanged, as provided in Section 5 above; on or prior to the date that is the later of (A) six years after the date hereof and (B) the Exchange Termination Date, the Series B Preferred Stock shall either, at the option of the Corporation, (i) remain outstanding or (ii) be repaid in amount equal to the Series B Liquidation Preference plus accrued dividends thereon, in cash or by the issuance of shares at the Corporation's Common Stock based on the then-current Conversion Price.

Y.

A. Reverse Stock Split.

(1) Effective 12:01 a.m. on April 16, 2003 (the "Effective Time") all shares of Common Stock of the Corporation issued and outstanding immediately prior to the Effective

Time ("Old Common Stock") shall be and hereby are automatically combined and reclassified (the "Reverse Split"), without any action on the part of the holder thereof, as follows: every six shares of Old Common Stock shall be combined and reclassified (the "Reverse Stock Split") as one share of issued and outstanding Common Stock ("New Common Stock"). The Corporation shall not issue fractional shares on account of the Reverse Stock Split. Any fractional share resulting from such change shall be rounded upward to the next higher whole share of New Common Stock.

(2) Following the Effective Time, each holder of Old Common Stock shall be entitled to receive upon surrender of such holder's certificate(s) representing Old Common Stock (whether one or more, "Old Certificates") for cancellation pursuant to procedures adopted by the Corporation, a certificate(s) representing the number of whole shares of New Common Stock (whether one or more, "New Certificates") into which and for which the shares of Old Common Stock formerly represented by such Old Certificates so surrendered are reclassified under the terms hereof. From and after the Effective Time, Old Certificates shall represent only the right to receive New Certificates. The Corporation shall not recognize on its stock record books any purported transfer of any fractional share of Common Stock of the Corporation.

VI.

A. Management. For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

B. Board of Directors.

(1) The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be designated in the Second Amended and Restated Bylaws of the Corporation (the "Bylaws"). The directors shall be divided into three classes with the term of office of the first class (Class I) to expire at the annual meeting of stockholders held in 2003; the term of office of the second class (Class II) to expire at the annual meeting of stockholders held in 2004; the term of office of the third class (Class III) to expire at the annual meeting of stockholders held in 2005; and, thereafter, for each such term to expire at each third succeeding annual meeting of stockholders after such election.

(2) Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

(4) Subject to the rights of the holders of any series of Preferred Stock, no director shall be removed without cause. Subject to any limitations imposed by law, the Board of Directors or any individual director may be removed from office at any time with cause by the affirmative vote of the holders of a majority of the outstanding voting stock of the Corporation.

(5) Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

C. Stockholders.

(1) Subject to paragraph (6) of Article VI of the Bylaws, the Bylaws may be altered or amended or new Bylaws adopted by the affirmative vote of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding voting stock of the Corporation. The Board of Directors shall also have the power to adopt, amend, or repeal Bylaws.

(2) Any action required to be taken, or any action which may be taken, at any annual or special meeting of stockholders of the Corporation, may be taken without a meeting, without prior notice and without a vote, by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(3) Special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

(4) Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

VII.

A. Limitation of Liability. A director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware

General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

B. Indemnification. The Corporation shall indemnify to the fullest extent permitted by law any person who was or is made or is threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise.

C. Amendments. Any repeal or modification of this Article VII shall be prospective and shall not affect the rights under this Article VII in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VIII.

A. The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B of this Article VIII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the then outstanding voting stock of the Corporation required by law, this Amended and Restated Certificate of Incorporation or any Preferred Stock Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding voting stock of the Corporation, voting together as a single class, shall be required to alter, amend or repeal Articles.

IN WITNESS WHEREOF, this certificate has been signed this 16th day of April, 2003 by the undersigned who affirms that the statements made herein are true and correct.

/s/ Howard W. Robin
Name: Howard W. Robin
Title: President and Chief Executive Officer