

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7644279

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CHANGE OF NAME
CONVEYING PARTY DATA	
Name	Execution Date
AMYRIS BIOTECHNOLOGIES, INC.	06/21/2010
RECEIVING PARTY DATA	
Name:	AMYRIS, INC.
Street Address:	3500 SOUTH DUPONT HIGHWAY
City:	DOVER
State/Country:	DELAWARE
Postal Code:	19901
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12439812
CORRESPONDENCE DATA	
Fax Number:	(650)327-3231
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	6503273400
Email:	lam@bozpat.com
Correspondent Name:	BOZICEVIC, FIELD AND FRANCIS LLP
Address Line 1:	201 REDWOOD SHORES PARKWAY
Address Line 2:	SUITE 200
Address Line 4:	REDWOOD CITY, CALIFORNIA 94065
ATTORNEY DOCKET NUMBER:	BERK-059
NAME OF SUBMITTER:	PAULA A. BORDEN
SIGNATURE:	/Paula A. Borden/
DATE SIGNED:	11/14/2022
Total Attachments: 20	
source=2010-06-21 Certificate of Name Change - AM-500 C3#page1.tif	
source=2010-06-21 Certificate of Name Change - AM-500 C3#page2.tif	
source=2010-06-21 Certificate of Name Change - AM-500 C3#page3.tif	
source=2010-06-21 Certificate of Name Change - AM-500 C3#page4.tif	
source=2010-06-21 Certificate of Name Change - AM-500 C3#page5.tif	

source=2010-06-21 Certificate of Name Change - AM-500 C3#page6.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page7.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page8.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page9.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page10.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page11.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page12.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page13.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page14.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page15.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page16.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page17.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page18.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page19.tif
source=2010-06-21 Certificate of Name Change - AM-500 C3#page20.tif

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "AMYRIS BIOTECHNOLOGIES, INC.", CHANGING ITS NAME FROM "AMYRIS BIOTECHNOLOGIES, INC." TO "AMYRIS, INC.", FILED IN THIS OFFICE ON THE TWENTY-FIRST DAY OF JUNE, A.D. 2010, AT 8:25 O'CLOCK A.M.

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

4768633 8100

100672905

You may verify this certificate online
at corp.delaware.gov/authver.shtml




Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 8064893

DATE: 06-21-10

PATENT
REEL: 061935 FRAME: 0463

AMYRIS BIOTECHNOLOGIES, INC.

RESTATED CERTIFICATE OF INCORPORATION

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Amyris Biotechnologies, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"), does hereby certify as follows.

1. The name of this corporation is Amyris Biotechnologies, Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on April 15, 2010 under the name Amyris Biotechnologies, Inc.

2. The Board of Directors of this corporation duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows.

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as set forth on Exhibit A attached hereto and incorporated herein by this reference.

3. Exhibit A referred to above is attached hereto as Exhibit A and is hereby incorporated herein by this reference. This Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. This Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 18th day of June, 2010.

By: /s/ John Melo
John Melo, President

EXHIBIT A

AMYRIS BIOTECHNOLOGIES, INC.

RESTATED CERTIFICATE OF INCORPORATION

ARTICLE I: NAME

The name of the corporation is Amyris, Inc. (the "*Company*").

ARTICLE II: REGISTERED OFFICE

The address of the registered office of the Corporation in the State of Delaware is 3500 South Dupont Highway, in the City of Dover, County of Kent, Delaware 19901. The name of its registered agent at such address is Incorporating Services, Ltd.

ARTICLE III: PURPOSE

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

ARTICLE IV: AUTHORIZED SHARES

The total number of shares of all classes of stock which the Corporation shall have authority to issue is (a) 70,000,000 shares of Common Stock, \$0.0001 par value per share ("Common Stock"), and (b) 30,963,903 shares of Preferred Stock, \$0.0001 par value per share ("Preferred Stock"). The Preferred Stock may be issued from time to time in one or more series, each of such series to consist of such number of shares and to have such terms, powers, preferences or rights, and the qualifications and limitations with respect thereto, as stated or expressed herein. As of the effective date of this Restated Certificate of Incorporation (this "Restated Certificate"), 9,475,000 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series A Preferred Stock", 1,929,641 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series B Preferred Stock", 4,700,000 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series B-1 Preferred Stock", 4,976,000 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series C Preferred Stock", 2,781,714 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series C-1 Preferred Stock", and 7,101,548 shares of the authorized Preferred Stock of the Corporation are hereby designated "Series D Preferred Stock". The following is a statement of the designations and the powers, preferences or rights, and the qualifications, limitations or restrictions thereof, in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. **General.** The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the powers, preferences or rights of the holders of the Preferred Stock set forth herein.

2. **Voting.** The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings). Unless required by law, there shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

The following powers, preferences or rights, and restrictions, qualifications and limitations, shall apply to the Preferred Stock. Unless otherwise indicated, references to "Sections" in this Part B of this Article IV refer to sections of this Part B.

1. Dividends.

a. **Preferred Stock Dividends.** The holders of Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock, Series C-1 Preferred Stock and Series D Preferred Stock shall be entitled to receive non-cumulative dividends, on a *pari passu* basis, at the rate of 8% of the Series A Issue Price as defined in Section 2.a. (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series A Preferred Stock, at the rate of 8% of the Series B Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series B Preferred Stock, at the rate of 8% of the Series B-1 Issue Price as defined in Section 2.a. (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series B-1 Preferred Stock, at the rate of 8% of the Series C Issue Price as defined in Section 2.a. (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series C Preferred Stock, at the rate of 8% of the Series C-1 Issue Price as defined in Section 2.a. (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series C-1 Preferred Stock, and at the rate of 8% of the Series D Issue Price as defined in Section 2.a. (as adjusted for any stock dividends, combinations or splits with respect to such shares) per annum for the Series D Preferred Stock, payable out of funds legally available therefor. Such dividends shall be payable only when, as, and if declared by the Board of Directors and shall be non-cumulative.

No dividends (other than those payable solely in the Common Stock of the Company) shall be paid or other distribution made on any Common Stock of the Company, or purchase, redemption or other acquisition of Common Stock for value during any fiscal year of the

Company until dividends, in the amount of 8% of the Series A Issue Price (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series A Preferred Stock, 8% of the Series B Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series B Preferred Stock, 8% of the Series B-1 Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series B-1 Preferred Stock, 8% of the Series C Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series C Preferred Stock, 8% of the Series C-1 Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series C-1 Preferred Stock, and 8% of the Series D Issue Price as defined in Section 2.a (as adjusted for any stock dividends, combinations or splits with respect to such shares) on the Series D Preferred Stock shall have been paid or declared and set apart during that fiscal year, except for:

(i) acquisitions of Common Stock by the Company pursuant to agreements which permit the Company to repurchase such shares at cost (or the lesser of cost or fair market value) upon termination of services to the Company;

(ii) acquisitions of Common Stock in exercise of the Company's right of first refusal to repurchase such shares; or

(iii) distributions to holders of Common Stock in accordance with Section 2.

b. Common Stock Dividends. In the event the Company shall declare a distribution or dividend on any Common Stock (other than dividends payable solely in Common Stock of the Company), then, in each such case, the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Preferred Stock were the holders of the number of shares of Common Stock of the Company into which their respective shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Company entitled to receive such distribution.

2. Liquidation Preference.

a. Payments to Holders of Preferred Stock. In the event of any liquidation, dissolution or winding up of the Company (a "**Liquidation**"), whether voluntary or involuntary, the holders of the Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock, Series C-1 Preferred Stock and Series D Preferred Stock shall be entitled to receive, on a *pari passu* basis but prior and in preference to any distribution of any of the legally available assets or surplus funds of the Company to the holders of the Common Stock by reason of their ownership thereof, (i) in the case of Series A Preferred Stock, the amount of \$2.174 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares, (the "**Series A Issue Price**"), plus all declared but unpaid dividends, on each such share then held by them, (ii) in the case of Series B Preferred Stock, the amount of \$24.88 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares (the "**Series B Issue Price**"), plus all declared but unpaid dividends, on

each such share then held by them, (iii) in the case of Series B-1 Preferred Stock, the amount of \$25.26 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares (the "*Series B-1 Issue Price*"), plus all declared but unpaid dividends, on each such share then held by them, (iv) in the case of Series C Preferred Stock, the amount of \$12.46 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares (the "*Series C Issue Price*"), (v) in the case of Series C-1 Preferred Stock, the amount of \$17.56 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares (the "*Series C-1 Issue Price*"), and (vi) in the case of Series D Preferred Stock, the amount of \$18.75 per share, as adjusted for any stock dividends, combinations or splits with respect to such shares (the "*Series D Issue Price*"). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amount, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of the Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

b. Payments to Holders of Common Stock. After payment to the holders of the Preferred Stock of the amounts set forth in Section 2.a above, the entire remaining assets and funds of the Company legally available for distribution, if any, shall be distributed ratably among the holders of the Common Stock pro rata based on the number of shares of Common Stock held by each.

c. Conversion for Payments. Notwithstanding paragraphs (a) and (b) above, solely for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive with respect to a Liquidation, each series of Preferred Stock shall be treated as if all holders of such series had converted such holder's shares of such series into shares of Common Stock immediately prior to the Liquidation if, as a result of an actual conversion of any series of Preferred Stock (including taking into account the operation of this paragraph (c) with respect to all series of Preferred Stock), holders of such series would receive (with respect to such series), in the aggregate, an amount greater than the amount that would be distributed to holders of such series if such holders had not converted such series of Preferred Stock into shares of Common Stock.

d. Deemed Liquidation. For purposes of this Section 2, (i) any acquisition of the Company by means of merger or other form of corporate reorganization in which outstanding shares of the Company are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring company or its subsidiary (other than a transaction effected solely to reincorporate the Company in another jurisdiction) and pursuant to which the holders of the outstanding voting securities of the Company immediately prior to such consolidation, merger or other transaction fail to hold equity securities representing a majority of the voting power of the Company or surviving entity immediately following such consolidation, merger or other transaction (an "*Acquisition*") or (ii) a sale of all or substantially all of the assets of the Company (an "*Asset Sale*"), shall be treated as a Liquidation of the Company and shall entitle the holders of Preferred Stock to receive at the closing of such transaction in cash, securities or other property (valued as provided in Section 2.e below) the amounts as specified in Section 2.a above; provided that an Acquisition shall not include any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the

Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof.

e. Amount Deemed Paid or Distributed. Whenever the distribution provided for in this Section 2 shall be payable in securities or property other than cash, the value of such distribution shall be the fair market value of such securities or other property. Any securities shall be valued as follows:

(i) If traded on a securities exchange, the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the thirty (30) day period ending three (3) days prior to the closing;

(ii) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the closing; and

(iii) If there is no active market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Company.

3. Voting Rights. Except as otherwise provided herein or as required by law, the Preferred Stock will be voted equally with the shares of the Common Stock and not as a separate class, at any annual or special meeting of stockholders of the Company, and may act by written consent in the same manner as the Common Stock, in either case upon the following basis: each holder of shares of the Preferred Stock shall be entitled to the number of votes equal to the respective number of shares of Common Stock into which such shares of Preferred Stock could be converted immediately after the close of business on the record date fixed for such meeting or the effective date of such written consent, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Company. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

4. Conversion. The holders of the Preferred Stock shall have conversion rights as follows:

a. Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of the Company or any transfer agent for such stock, into fully paid and nonassessable shares of Common Stock. The number of shares of Common Stock to which a holder of Preferred Stock shall be entitled upon conversion shall be determined by dividing the Series A Issue Price, Series B Issue Price, Series B-1 Issue Price, Series C Issue Price, Series C-1 Issue Price or Series D Issue Price, as applicable, by the conversion price for such share in effect at the time that such certificate is surrendered for conversion, and then multiplying by the number of shares of Preferred Stock being converted. The conversion price per share (the "**Conversion Price**") as of the Original Issue Date (as defined below) shall be (i) for shares of Series A Preferred Stock \$2.174 per share, (ii) for shares of Series B Preferred Stock shall be \$22.24 per share, (iii) for shares of Series B-1 Preferred Stock shall be \$22.52 per share, (iv) for

shares of Series C Preferred Stock shall be \$12.46 per share, (v) for shares of Series C-1 Preferred Stock, \$17.56 per share, and (vi) for shares of Series D Preferred Stock, \$18.75 per share, in each case each subject to adjustment as hereinafter provided.

b. Automatic Conversion.

(i) Each share of Series A Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price upon the earlier to occur of (i) the date specified by written consent or agreement of stockholders holding at least a majority of the then outstanding shares of Series A Preferred Stock, voting together as a single class, or (ii) immediately upon the closing of the sale of the Company's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act of 1933, as amended (the "*Securities Act*"), which results in aggregate proceeds to the Company (before deduction for underwriters' discounts and expenses relating to the issuance, including without limitation fees of the Company's counsel) equal to at least \$30,000,000 (a "*Qualified IPO*"). Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1.

(ii) Each share of Series B Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price upon the earlier to occur of (i) the date specified by written consent or agreement of (A) stockholders holding at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class, and (B) stockholders holding at least a majority of the then outstanding shares of Series B Preferred Stock, voting together as a single class, or (ii) immediately upon the closing of a Qualified IPO. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1.

(iii) Each share of Series B-1 Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price upon the earlier to occur of (i) the date specified by written consent or agreement of (A) stockholders holding at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class, and (B) stockholders holding at least a majority of the then outstanding shares of Series B-1 Preferred Stock, voting together as a single class, or (ii) immediately upon the closing of a Qualified IPO. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1.

(iv) Each share of Series C Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price upon the earlier to occur of (i) the date specified by written consent or agreement of (A) stockholders holding at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class, and (B) stockholders holding at least a majority of the then outstanding shares of Series C Preferred Stock, voting together as a single class, or (ii) immediately upon the closing of a Qualified IPO. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1.

(v) Each share of Series C-1 Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price

upon the earlier to occur of (i) the date specified by written consent or agreement of (A) stockholders holding at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class, and (B) stockholders holding at least a majority of the then outstanding shares of Series C-1 Preferred Stock, voting together as a single class, or (ii) immediately upon the closing of a Qualified IPO. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1.

(vi) Each share of Series D Preferred Stock shall automatically be converted into shares of Common Stock at the then applicable Conversion Price upon the earlier to occur of (A) the date specified by written consent or agreement of stockholders holding at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class (provided that all other shares of Preferred Stock are converted into shares of Common Stock at the same time that the shares of Series D Preferred Stock are converted into shares of Common Stock), or (B) immediately upon the closing of a Qualified IPO. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 1. Notwithstanding the foregoing subclause (A), the consent of the holders of a majority of the Series D Preferred Stock shall also be required if the conversion of the shares of Series D Preferred Stock into shares of Common Stock is effected in connection with an Acquisition or Asset Sale in which the value of the consideration to be received (as determined in good faith by the Company's Board of Directors) in respect of the share or shares of Common Stock issuable upon conversion of a share of Series D Preferred Stock is less than the product of one hundred fifty percent (150%) multiplied by the Series D Issue Price.

c. Mechanics of Conversion.

(i) Except in the case of an automatic conversion pursuant to Section 4.b., before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Company or of any transfer agent for such stock, and shall give written notice to the Company at such office that such holder elects to convert the same and shall state therein the name or names in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. The Company shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid and shall promptly pay (i) in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the Board as of the date of such conversion), any declared and unpaid dividends on the shares of Preferred Stock being converted and (ii) in cash (at the Common Stock's fair market value determined by the Board as of the date of conversion) the value of any fractional share of Common Stock otherwise issuable to any holder of Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of surrender of the shares of 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 on such date.

(ii) If the conversion is in connection with an underwritten offering of securities pursuant to the Securities Act, the conversion may, at the option of any

holder tendering shares of Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities.

d. Adjustments to Conversion Price for Certain Diluting Issues.

(i) Special Definitions. For purposes of this Section 4, the following definitions apply:

(1) *"Options"* shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities (as defined below).

(2) *"Original Issue Date"* shall mean the date on which the first share of Series D Preferred Stock is issued.

(3) *"Convertible Securities"* shall mean any evidences of indebtedness, shares (other than Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock, Series C-1 Preferred Stock or Series D Preferred Stock) or other securities convertible into or exchangeable for Common Stock, including securities described in Section 4.d.(i)(4).

(4) *"Additional Shares of Common Stock"* shall mean all shares of Common Stock issued (or, pursuant to Section 4.d(iii) deemed to be issued) by the Company after the Original Issue Date, other than shares of Common Stock issued or issuable after the Original Issue Date:

(A) upon conversion of shares of Series A Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock, Series C Preferred Stock, Series C-1 Preferred Stock or Series D Preferred Stock;

(B) pursuant to or issuable upon exercise of options or warrants to purchase shares of Common stock, issued to employees, officers, directors or consultants of the Company or a subsidiary pursuant to stock option or stock purchase plans or other arrangements in each case on terms approved by at least 76% of the members of the Board of Directors of the Company;

(C) pursuant to transactions involving research or development funding, technology licensing, joint ventures, strategic alliances, partnering arrangements, bank financings or lease arrangements pursuant to agreements in each case approved by at least 76% of the members of the Board of Directors of the Company;

(D) pursuant to the acquisition of another corporation or entity by the corporation by way of merger, purchase of assets, stock for stock exchange or other reorganization or recapitalization in each case approved by at least 76% of the members of the Board of Directors of the Company;

- (E) in a Qualified IPO;
- (F) pursuant to a transaction described in Section 4.e or 4.f;
- (G) for which adjustment of the applicable Conversion Price is made pursuant to this Section 4;
- (H) pursuant to or issuable upon exercise of warrants, options or other rights to acquire securities of the Company outstanding as of the Original Issue Date and any securities issuable upon conversion thereof;
- (I) pursuant to or issuable upon conversion, exchange or cancellation of shares of Amyris Brasil S.A., a majority-owned subsidiary of the Company; or
- (J) upon the affirmative vote of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class on an as-if converted basis.

(ii) No Adjustment of Conversion Price. Any provision herein to the contrary notwithstanding, no adjustment in the applicable Conversion Price shall be made in respect of the issuance of Additional Shares of Common Stock unless the consideration per share (determined pursuant to Section 4.d(v) hereof) for an Additional Share of Common Stock issued or deemed to be issued by the Company is less than the applicable Conversion Price in effect immediately prior to such issue.

(iii) Deemed Issue of Additional Shares of Common Stock. In the event the Company at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities then entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein designed to protect against dilution) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(1) no further adjustments in the applicable Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

(2) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase in the consideration payable to the Company, or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the applicable Conversion Price computed upon the

original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities (provided, however, that no such adjustment of the Conversion Price shall affect Common Stock previously issued upon conversion of the Preferred Stock);

(3) upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the applicable Conversion Price to the extent in any way affected by or computed using such options, rights or securities or options or rights related to such securities, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or exchangeable securities which remain in effect) actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities;

(4) no readjustment pursuant to clause (2) or (3) above shall have the effect of increasing the applicable Conversion Price to an amount which exceeds the lower of (a) the Conversion Price on the original adjustment date or (b) the Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Company, at any time after the Original Issue Date shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.d(iii)) without consideration or for a consideration per share less than the applicable Conversion Price in effect on the date of and immediately prior to such issue, then, and in such event, the applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying the Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock deemed outstanding (as defined below) immediately prior to such issuance plus the number of shares of Common Stock which the aggregate consideration received by the Company for the total number of Additional Shares of Common Stock so issued would purchase at the Conversion Price in effect immediately prior to such issuance, and the denominator of which shall be the number of shares of Common Stock deemed outstanding (as defined below) immediately prior to such issuance plus the number of such Additional Shares of Common Stock so issued. For the purpose of the above calculation, the number of shares of Common Stock outstanding immediately prior to such issue shall be calculated on a fully diluted basis, as if all shares of Preferred Stock and all outstanding Convertible Securities had been fully converted into shares of Common Stock and any outstanding warrants, outstanding options or other rights outstanding for the purchase of shares of stock or convertible securities had been fully exercised (and the resulting securities fully converted into shares of Common Stock, if so convertible) as of such date. For the purposes of adjusting the applicable Conversion Price of a series of Preferred Stock, the grant, issue or sale of Additional Shares of Common consisting of the same class of security and warrants to purchase such security issued or issuable at the same price at two or more closings held within a six (6) month period shall be aggregated and shall be

treated as one sale of Additional Shares of Common occurring on the earliest date on which such securities were granted, issued or sold.

(v) Determination of Consideration. For purposes of this Section 4.d, the consideration received by the Company for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Company, excluding amounts paid or payable for accrued interest or declared but unpaid dividends;

(B) insofar as it consists of property other than cash, be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Company for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors.

(2) Options and Convertible Securities. The consideration per share received by the Company for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.d(iii), relating to Options and Convertible Securities shall be determined by dividing

(A) the total amount, if any, received or receivable by the Company as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against dilution) payable to the Company upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities by

(B) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against the dilution) issuable upon the exercise of such Options or conversion or exchange of such Convertible Securities.

e. Adjustment of Conversion Price of Series D Preferred Stock Upon Qualified IPO. In the event of a Qualified IPO that closes (i) on or before September 30, 2010, in which the initial public offering price for the Common Stock in such Qualified IPO (the "***IPO Price***") is less than the product of (a) 1.16 multiplied by (b) the Series D Preferred Stock Conversion Price then in effect, the Series D Preferred Stock Conversion Price shall be reduced to the quotient obtained by dividing (w) the IPO Price by (x) 1.16; or (ii) after September 30, 2010, in which the IPO Price is less than the product of (c) 1.30 multiplied by (d) the Series D

Preferred Stock Conversion Price then in effect, the Series D Preferred Stock Conversion Price shall be reduced to the quotient obtained by dividing (y) the IPO Price by (z) 1.30.

f. Adjustments for Stock Dividends and for Combinations or Subdivisions of Common Stock. In the event that this Company at any time or from time to time after the Original Issue Date shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or in any right to acquire Common Stock for no consideration, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or in the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the conversion price for any series of Preferred Stock in effect immediately prior to such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate. In the event that the Company shall declare or pay, without consideration, any dividend on the Common Stock payable in any right to acquire Common Stock for no consideration then the Company shall be deemed to have made a dividend payable in Common Stock in an amount of shares equal to the maximum number of shares issuable upon exercise of such rights to acquire Common Stock.

g. Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of any series of Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.e above or a merger or other reorganization referred to in Section 2.d above), the Conversion Price for any series of Preferred Stock then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Preferred Stock immediately before that change, respectively.

h. Certificates as to Adjustments. Upon the occurrence of each adjustment or readjustment of any conversion price pursuant to this Section 4, the Company at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Preferred Stock a certificate executed by the Company's President, Chief Financial Officer or a Vice President setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the conversion price for such series of Preferred Stock 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 the Preferred Stock.

i. Notices of Record Date. In the event that the Company shall propose at any time (i) to declare any dividend or distribution upon its Common Stock, whether

in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus, (ii) a Liquidation or any voluntary or involuntary dissolution or winding up of the Company, or (iii) to offer for subscription pro rata to the holders of any class or series of its stock any additional shares of stock of any class or series or other rights, then, in connection with each such event, unless otherwise waived by a majority of Preferred Stock, the Company shall send to the holders of Preferred Stock at least twenty (20) days' prior written notice of the date on which a record shall be taken for such dividend, distribution, Liquidation, dissolution, winding up or subscription rights.

j. Reservation of Stock Issuable Upon Conversion. The Company 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 Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Company will take such corporate action as 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 purpose, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Restated Certificate.

k. Fractional Shares. No fractional share shall be issued upon the conversion of any share or shares of Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fraction of a share of Common Stock, the Company shall, in lieu of issuing any fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the fair market value of such fraction on the date of conversion (as determined in good faith by the Board of Directors).

l. Notices. Any notice required by the provisions of this Section 4 shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after deposit in the United States mail, by registered or certified mail, postage prepaid and properly addressed to the party to be notified, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All notices shall be addressed to each holder of record at the address of such holder appearing on the books of the Company.

5. Board Representation. In addition to the rights of the holders of Preferred Stock to vote on an as converted basis with holders of Common Stock pursuant to Section 3 above, with respect to election of directors:

a. For so long as any shares of Series A Preferred Stock remain outstanding, the holders of Series A Preferred Stock, voting as a separate class, shall be entitled

to elect three (3) members of the Board of Directors (each a "*Series A Director*") at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors. Notwithstanding the foregoing, the right of the holders of Series A Preferred Stock to elect the Series A Directors shall terminate upon the earliest to occur of the following: (i) an Acquisition; or (ii) an Asset Sale.

b. The holders of Series D Preferred Stock, voting as a separate class, shall be entitled to elect one (1) member of the Board of Directors (the "*Series D Director*") at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors. Notwithstanding the foregoing, the right of the holders of Series D Preferred Stock to elect the Series D Director shall terminate upon the earliest to occur of the following: (i) such time as the Investor (as defined in that certain Series D Preferred Stock Purchase Agreement dated on or about the date of filing of this Restated Certificate by and between the Company and the Investor (the "*Purchase Agreement*")), together with its Affiliates (as defined below), holds less than fifty percent (50%) of the shares of Series D Preferred Stock purchased by it pursuant to the Purchase Agreement; (ii) an Acquisition; or (iii) an Asset Sale. "*Affiliate*" means, with respect to a Person (as defined below), any Person that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such first Person. For purposes of this definition, "control" and, with correlative meanings, the terms "controlled by" and "under common control with" mean (x) the possession, directly or indirectly, of the power to direct the management or policies of a Person, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance, or otherwise, or (y) the ownership, directly or indirectly, of more than 50% of the voting securities or other ownership interest of a Person. "*Person*" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

c. The holders of Common Stock, voting as a separate class, shall be entitled to elect two (2) members of the Board of Directors (each a "*Common Director*") at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

d. The holders of Preferred Stock and the holders of Common Stock, voting together as a single class on an as-if converted basis, shall be entitled to elect any additional members of the Board of Directors (each an "*Independent Director*"), and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

6. Redemption. The Preferred Stock shall not be redeemable.

7. Restrictions and Limitations. So long as at least 20% of the shares of the Preferred Stock sold by the Company (as adjusted for stock splits, dividends, combinations,

recapitalizations and the like) remain outstanding, consent of the holders of at least the majority of the then outstanding shares of Preferred Stock shall be required for any action that (whether by amendment, merger, reorganization or otherwise):

- a. alters or changes the powers, preferences or rights of the Common Stock or the Preferred Stock,
- b. increases or decreases the authorized number of shares of Common or Preferred Stock,
- c. creates (whether by amendment, merger, reorganization or otherwise) any new class or series of shares having powers, preferences or rights senior to or on a parity with the Preferred Stock,
- d. results in the redemption of any shares of Preferred Stock or Common Stock (other than pursuant to equity incentive agreements with employees and other service providers giving the Company the right to repurchase shares upon the termination of employment or such other service relationship, at their original cost),
- e. results in a Liquidation or other corporate reorganization, including any reorganization or other transaction involving any parent or subsidiary of the Company,
- f. amends or waives any provision of the Company's certificate of incorporation or bylaws,
- g. increases or decreases the authorized size of the Company's Board of Directors, or
- h. results in the payment or declaration of any dividend on any shares of Common or Preferred Stock.

8. Further Restrictions and Limitations. So long as at least 50% of the shares of the Series D Preferred Stock sold by the Company (as adjusted for stock splits, dividends, combinations, recapitalizations and the like with respect to such shares) remain outstanding, consent of the holders of at least the majority of the then outstanding shares of the Series D Preferred Stock shall be required for any action that (whether by amendment, merger, reorganization or otherwise):

- a. approves or permits the approval of a "drag-along" provision, or any provision that functions as a "drag-along" that would require the holders of Series D Preferred Stock to vote in favor of or otherwise support an Acquisition or Asset Sale,
- b. amends, alters or changes the powers, preferences or rights of the Series D Preferred Stock (provided that the creation (whether by amendment, merger, reorganization or otherwise) of any new class or series of shares having powers, preferences or rights on parity with the Series D Preferred Stock shall not constitute an amendment, alteration or change of the powers, preferences or rights of the Series D Preferred Stock),

c. increases the number of authorized shares of Series D Preferred Stock,

d. creates (whether by amendment, merger, reorganization or otherwise) any new class or series of shares having powers, preferences or rights senior to the Series D Preferred Stock, or

e. results in the redemption of any shares of Preferred Stock or Common Stock (other than (i) pursuant to equity incentive agreements with employees and other service providers giving the Company the right to repurchase shares upon the termination of employment or such other service relationship, at their original cost, or (ii) repurchases or redemptions of shares from any founder or service provider upon terms approved by the Company's Board of Directors),

f. increases the authorized size of the Board of Directors to more than eleven (11) members,

9. No Reissuance of Preferred Stock. No share or shares of Preferred Stock acquired by the Company by reason of redemption, purchase, conversion, or otherwise shall be reissued; and, in addition, the certificate of incorporation shall be appropriately amended to effect the corresponding reduction in the Company's authorized stock.

ARTICLE V: PREEMPTIVE RIGHTS.

No stockholder of the Corporation shall have a right to purchase shares of capital stock of the Corporation sold or issued by the Corporation except to the extent that such a right may from time to time be set forth in a written agreement between the Corporation and any stockholder.

ARTICLE VI: STOCK REPURCHASES.

In connection with repurchases by the Corporation of its Common Stock from Service Providers pursuant to agreements under which the Corporation has the option to repurchase such shares at cost upon the occurrence of certain events, such as the termination of employment, Sections 502 and 503 of the Corporations Code of the State of California shall not apply in all or in part with respect to such repurchases.

ARTICLE VII: BYLAW PROVISIONS.

A. AMENDMENT OF BYLAWS. Subject to any additional vote required by the Restated Certificate or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

B. NUMBER OF DIRECTORS. Subject to any additional vote required by the Restated Certificate, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

C. BALLOT. Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

D. MEETINGS AND BOOKS. Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board or in the Bylaws of the Corporation.

ARTICLE VIII: DIRECTOR LIABILITY.

A. LIMITATION. To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article VIII to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended. Any repeal or modification of the foregoing provisions of this Article VIII by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

B. INDEMNIFICATION. To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

C. MODIFICATION. Any amendment, repeal or modification of the foregoing provisions of this Article VIII shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

ARTICLE IX: CREDITOR AND STOCKHOLDER COMPROMISES

Whenever a compromise or arrangement is proposed between the Corporation and its creditors or any class of them and/or between the Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of the Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for the Corporation under the provisions of §291 of Title 8 of the General Corporation Law or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under §279 of Title 8 of the General Corporation Law order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of the Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class

of creditors, and/or of the stockholders or class of stockholders of the Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of the Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of the Corporation, as the case may be, and also on the Corporation.

* * * * *

20897-3/260932421.3