



**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM S-8**

**REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933**

**EMERGENT BIOSOLUTIONS INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of Incorporation  
or Organization)

**14-1902018**  
(I.R.S. Employer  
Identification No.)

**300 Professional Drive, Suite 250**  
**Gaithersburg, Maryland**  
(Address of Principal Executive Offices)

**20879**  
(Zip Code)

**Employee Stock Option Plan, as amended and restated**  
**Individual Director Stock Option Agreements**  
**2006 Stock Incentive Plan**  
(Full Title of the Plan)

**Fuad El-Hibri**  
**President, Chief Executive Officer and**  
**Chairman of the Board of Directors**  
**Emergent BioSolutions Inc.**  
**300 Professional Drive, Suite 250**  
**Gaithersburg, Maryland 20879**

(Name and Address of Agent For Service)  
**(301) 944-0290**

(Telephone Number, Including Area Code, of Agent For Service)

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.001 par value per share (including the associated series A junior participating preferred stock purchase rights)	7,806,319 shares (2)	\$7.559803929 (3)	\$59,014,241.05 (3)	\$6,315

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Consists of (i) 2,806,978 shares issuable under the Registrant's Employee Stock Option Plan, as amended and restated, (ii) 215,780 shares issuable pursuant to individual option agreements with the Registrant's directors and (iii) 4,783,561 shares issuable under the Registrant's 2006 Stock Incentive Plan, including 3,694,100 shares in connection with automatic semi-annual increases in the number of shares available for issuance under the 2006 Stock Incentive Plan pursuant to an "evergreen provision."
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) of the Securities Act of 1933, as amended. The price per share and aggregate offering price are calculated on the basis of (a) \$2.25, the weighted average exercise price of the 2,806,978 shares subject to outstanding stock option grants under the Registrant's Employee Stock Option Plan, as amended and restated, at prices ranging from \$0.09 to \$13.26, (b) \$5.91, the weighted average exercise price of the 215,780 shares subject to outstanding stock option grants to the Registrant's directors pursuant to individual option agreements, at prices ranging from \$2.74 to \$10.28 and (c) \$10.75, the average of the high and low sale prices of the Registrant's common stock on the New York Stock Exchange on December 4, 2006, in accordance with Rule 457(c) under the Securities Act of 1933, as amended, for the 4,783,561 shares issuable under the 2006 Stock Incentive Plan which are not subject to outstanding options.

**PART I**  
**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

**Item 1. Plan Information.**

The information required by Item 1 is included in documents sent or given to participants in the plans covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act").

**Item 2. Registrant Information and Employee Plan Annual Information.**

The written statement required by Item 2 is included in documents sent or given to participants in the plans covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act.

**PART II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The registrant is subject to the informational and reporting requirements of Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). The following documents, which are on file with the Commission, are incorporated in this registration statement by reference:

- (a) The registrant's latest annual report filed pursuant to Section 13(a) or 15(d) of the Exchange Act or the latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the registrant's latest fiscal year for which such statements have been filed.
- (b) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above.
- (c) The description of the securities contained in the registrant's registration statement on Form 8-A filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of the filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Wilmer Cutler Pickering Hale and Dorr LLP has opined as to the legality of the securities being offered by this registration statement.

**Item 6. Indemnification of Directors and Officers.**

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The registrant's restated certificate of incorporation provides that no director of the registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnify for such expenses which the Court of Chancery or such other court shall deem proper.

The registrant's restated certificate of incorporation provides that the registrant will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the registrant) by reason of the fact that he or she is or was, or has agreed to become, a director or officer of the registrant, or is or was serving, or has agreed to serve, at the registrant's request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, including any employee benefit plan, (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The registrant's restated certificate of incorporation provides that the registrant will indemnify any Indemnitee who was or is a party to or threatened to be

made a party to any threatened, pending or completed action or suit by or in the right of the registrant to procure a judgment in the registrant's favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer of the registrant, or is or was serving, or has agreed to serve, at the registrant's request, as a director, officer, partner, employee or trustee of or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the registrant, except that no indemnification shall be made with respect to any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the registrant, unless, and only to the extent, that the Court of Chancery of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expense (including attorney's fees) which the Court of Chancery of Delaware or the court in which such action or suit was brought shall deem proper. Notwithstanding the foregoing, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding, Indemnitee shall be indemnified by the registrant against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

The registrant has entered into agreements to indemnify the registrant's directors and executive officers. These agreements, among other things, provide that the registrant will indemnify the director or executive officer to the fullest extent permitted by law for claims arising in his or her capacity as a director, officer, manager, employee, agent or representative of the registrant. The indemnification agreements also establish the procedures that will apply in the event a director or officer makes a claim for indemnification.

The registrant maintains a general liability insurance policy which covers certain liabilities of directors and officers of the registrant arising out of claims based on acts or omissions in their capacities as directors or officers.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

**Item 9. Undertakings.**

1. *Item 512(a) of Regulation S-K.* The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in

the aggregate, represent a fundamental change in the information set forth in the registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that paragraphs (i) and (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. Item 512(b) of Regulation S-K. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

3. Item 512(h) of Regulation S-K. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Gaithersburg, State of Maryland on this 8<sup>th</sup> day of December, 2006.

EMERGENT BIOSOLUTIONS INC.

By: /s/ Fuad El-Hibri  
Fuad El-Hibri  
President, Chief Executive Officer and Chairman of the  
Board of Directors

## POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Emergent BioSolutions Inc., hereby severally constitute and appoint Fuad El-Hibri and R. Don Elsey, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Emergent BioSolutions Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Fuad El-Hibri</u> Fuad El-Hibri	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	December 8, 2006
<u>/s/ R. Don Elsey</u> R. Don Elsey	Vice President Finance, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	December 7, 2006
<u>/s/ Joe M. Allbaugh</u> Joe M. Allbaugh	Director	December 4, 2006
<u>/s/ Zsolt Harsanyi</u> Zsolt Harsanyi, Ph.D.	Director	December 7, 2006

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jerome M. Hauer</u> Jerome M. Hauer	Director	December 4, 2006
<u>/s/ Shahzad Malik</u> Shahzad Malik, M.D.	Director	December 4, 2006
<u>/s/ Ronald B. Richard</u> Ronald B. Richard	Director	December 4, 2006
<u>/s/ Louis W. Sullivan</u> Louis W. Sullivan	Director	December 7, 2006

## INDEX TO EXHIBITS

<u>Number</u>	<u>Description</u>
4.1	Restated Certificate of Incorporation of the Registrant
4.2	Amended and Restated By-laws of the Registrant
4.3	Rights Agreement dated November 14, 2006 between the Registrant and American Stock Transfer & Trust Company, as rights agent
5	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant
23.1	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5)
23.2	Consent of Independent Registered Public Accounting Firm
23.3	Consent of Independent Auditors of Emergent Product Development UK Limited
24	Power of attorney (included on the signature pages of this registration statement)

**RESTATED CERTIFICATE OF INCORPORATION  
OF  
EMERGENT BIOSOLUTIONS INC.**

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Pursuant to Sections 242 and 245 of the  
General Corporation Law of the State of Delaware  
(originally incorporated on December 19, 2003)

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Emergent BioSolutions Inc. (the "Corporation"), 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"), hereby certifies as follows:

1. The current name of the Corporation and the name under which the Corporation was originally incorporated is Emergent BioSolutions Inc. The original Certificate of Incorporation was filed on December 19, 2003. An Amended and Restated Certificate of Incorporation was filed on February 2, 2004. A Certificate of Amendment was filed on October 27, 2006. A Certificate of Designations of Series A Junior Participating Preferred Stock was filed on November 14, 2006.

2. The Board of Directors of the Corporation pursuant to Sections 242 and 245 of the General Corporation Law duly adopted resolutions setting forth this Restated Certificate of Incorporation and declaring said Restated Certificate of Incorporation advisable. The stockholders of the Corporation duly approved and adopted this Restated Certificate of Incorporation by written consent in accordance with Sections 228, 242 and 245 of the General Corporation Law, and written notice of such consent has been given to all stockholders who have not consented in writing and who are entitled to such notice pursuant to Section 228(e) of the General Corporation Law.

The Certificate of Incorporation of this Corporation, as previously amended and restated, is hereby further amended and restated in its entirety to read as follows:

\* \* \*

FIRST: The name of the Corporation is Emergent BioSolutions Inc. (hereinafter referred to as the "Corporation").

SECOND: The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

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

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FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is 115,000,000 shares, consisting of (i) 100,000,000 shares of Common Stock, \$0.001 par value per share ("Common Stock"), and (ii) 15,000,000 shares of Preferred Stock, \$0.001 par value per share ("Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

#### A COMMON STOCK.

1. Voting. The holders of the Common Stock shall have voting rights at all meetings of stockholders, each such holder being entitled to one vote for each share thereof held by such holder; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (which, as used herein, shall mean the restated certificate of incorporation of the Corporation, as amended from time to time, including the terms of any certificate of designations of any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Certificate of Incorporation. 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 the affirmative vote of the holders of capital stock representing a majority of the votes entitled to be cast irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of Delaware.

2. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend or other rights of any then outstanding Preferred Stock.

3. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive ratably all assets of the Corporation available for distribution to its stockholders, subject to any preferential or other rights of any then outstanding Preferred Stock.

#### B PREFERRED STOCK.

Preferred Stock may be issued from time to time in one or more series, each of such series to have such terms as stated or expressed herein and in the resolution or resolutions providing for the issue of such series adopted by the Board of Directors as hereinafter provided. Any shares of Preferred Stock which may be redeemed, purchased or acquired by the Corporation may be reissued except as otherwise provided by law.

Authority is hereby expressly granted to the Board of Directors from time to time to issue the Preferred Stock in one or more series, and in connection with the creation of any such series, by resolution or resolutions providing for the issuance of the shares thereof, to determine and fix

the number of shares of such series and such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be stated and expressed in such resolutions, all to the full extent now or hereafter permitted by the General Corporation Law of Delaware. Without limiting the generality of the foregoing, the resolutions providing for issuance of any series of Preferred Stock may provide that such series shall be superior or rank equally or be junior to the Preferred Stock of any other series to the extent permitted by law.

The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares then outstanding) by the affirmative vote of the holders of capital stock representing a majority of the votes entitled to be cast irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of Delaware.

FIFTH: Except as otherwise provided herein, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute and this Certificate of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

SIXTH: In furtherance and not in limitation of the powers conferred upon it by the laws of the State of Delaware, and subject to the terms of any series of Preferred Stock, the Board of Directors shall have the power to adopt, amend, alter or repeal the Corporation's By-laws. Until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of at least 75% of the directors then in office shall be required to adopt, amend, alter or repeal the Corporation's By-laws. Until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the Corporation's By-laws also may be adopted, amended, altered or repealed by the affirmative vote of the holders of capital stock representing at least a majority of the voting power of all outstanding stock entitled to vote thereon, in addition to any other vote required by this Certificate of Incorporation. Following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present shall be required to adopt, amend, alter or repeal the Corporation's By-laws. Following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the Corporation's By-laws also may be adopted, amended, altered or repealed by the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the voting power of all outstanding stock entitled to vote thereon, in addition to any other vote required by this Certificate of Incorporation. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, (i) until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least a majority of the voting power of all outstanding stock entitled to vote thereon, and (ii) following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the voting power of all outstanding stock

entitled to vote thereon, shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article SIXTH.

SEVENTH: Except to the extent that the General Corporation Law of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

EIGHTH: The Corporation shall provide indemnification and advancement of expenses as follows:

1. Actions, Suits and Proceedings Other than by or in the Right of the Corporation. The Corporation shall indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

2. Actions or Suits by or in the Right of the Corporation. The Corporation shall indemnify any Indemnitee who was or is a party to or threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that Indemnitee is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in

good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, except that no indemnification shall be made under this Section 2 in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the Corporation, unless, and only to the extent, that the Court of Chancery of Delaware, or the court in which such action or suit was brought, shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses (including attorneys' fees) which the Court of Chancery of Delaware, or the court in which such action or suit was brought, shall deem proper.

3. Indemnification for Expenses of Successful Party. Notwithstanding any other provisions of this Article, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article EIGHTH, or in defense of any claim, issue or matter therein, or on appeal from any such action, suit or proceeding, Indemnitee shall be indemnified against all expenses (including attorneys' fees) actually and reasonably incurred by or on behalf of Indemnitee in connection therewith. Without limiting the foregoing, if any action, suit or proceeding is disposed of, on the merits or otherwise (including a disposition without prejudice), without (i) the disposition being adverse to Indemnitee, (ii) an adjudication that Indemnitee was liable to the Corporation, (iii) a plea of guilty or nolo contendere by Indemnitee, (iv) an adjudication that Indemnitee did not act in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and (v) with respect to any criminal proceeding, an adjudication that Indemnitee had reasonable cause to believe his conduct was unlawful, Indemnitee shall be considered for the purposes hereof to have been wholly successful with respect thereto.

4. Notification and Defense of Claim. As a condition precedent to an Indemnitee's right to be indemnified pursuant to Section 1, 2 or 3 of this Article EIGHTH, or to receive advancement of expenses pursuant to Section 5 of this Article EIGHTH, such Indemnitee must notify the Corporation in writing as soon as practicable of any action, suit, proceeding or investigation involving such Indemnitee for which indemnity or advancement of expenses will or could be sought. With respect to any action, suit, proceeding or investigation of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to Indemnitee. After notice from the Corporation to Indemnitee of its election so to assume such defense, the Corporation shall not be liable to Indemnitee for any legal or other expenses subsequently incurred by Indemnitee in connection with such action, suit, proceeding or investigation, other than as provided below in this Section 4. Indemnitee shall have the right to employ his or her own counsel in connection with such action, suit, proceeding or investigation, but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of Indemnitee unless (i) the employment of counsel by Indemnitee has been authorized by the Corporation, (ii) counsel to Indemnitee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and Indemnitee in the conduct of the defense of such action, suit, proceeding or investigation or (iii) the Corporation shall not in fact have employed counsel to assume the defense of such action, suit, proceeding or investigation, in each of which cases the fees and expenses of counsel for Indemnitee shall be at

the expense of the Corporation, except as otherwise expressly provided by this Article. The Corporation shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Corporation or as to which counsel for Indemnitee shall have reasonably made the conclusion provided for in clause (ii) of the preceding sentence. The Corporation shall not be required to indemnify Indemnitee under this Article EIGHTH for any amounts paid in settlement of any action, suit, proceeding or investigation effected without its written consent. The Corporation shall not settle any action, suit, proceeding or investigation in any manner which would impose any penalty or limitation on Indemnitee without Indemnitee's written consent. Neither the Corporation nor Indemnitee will unreasonably withhold or delay its consent to any proposed settlement.

5. Advance of Expenses. Subject to the provisions of Sections 4 and 6 of this Article EIGHTH, any expenses (including attorneys' fees) incurred by or on behalf of Indemnitee in defending an action, suit, proceeding or investigation or any appeal therefrom shall be paid by the Corporation in advance of the final disposition of such matter; provided, however, that the payment of such expenses incurred by or on behalf of Indemnitee in advance of the final disposition of such matter shall be made only upon receipt of an undertaking by or on behalf of Indemnitee to repay all amounts so advanced in the event that it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Corporation as authorized in this Article. Such undertaking shall be accepted without reference to the financial ability of Indemnitee to make such repayment.

6. Procedure for Indemnification and Advance of Expenses. In order to obtain indemnification pursuant to Section 1, 2 or 3 of this Article EIGHTH or advancement of expenses pursuant to Section 5 of this Article EIGHTH, an Indemnitee shall submit to the Corporation a written request. Any such advancement of expenses shall be made promptly, and in any event within 30 days after receipt by the Corporation of the written request of Indemnitee, unless the Corporation has assumed the defense pursuant to Section 4 of this Article EIGHTH (and none of the circumstances described in Section 4 of this Article EIGHTH that would nonetheless entitle the Indemnitee to indemnification or an advancement for the fees and expenses of separate counsel have occurred). Any such indemnification, unless ordered by a court, shall be made with respect to requests under Section 1 or 2 only as authorized in the specific case upon a determination by the Corporation that the indemnification of Indemnitee is proper because Indemnitee has met the applicable standard of conduct set forth in Section 1 or 2, as the case may be. Such determination shall be made in each instance (a) by a majority vote of the directors of the Corporation who are not at that time parties to the action, suit or proceeding in question ("disinterested directors"), whether or not a quorum, (b) by a committee of disinterested directors designated by majority vote of disinterested directors, whether or not a quorum, (c) if there are no disinterested directors, or if the disinterested directors so direct, by independent legal counsel (who may, to the extent permitted by law, be regular legal counsel to the Corporation) in a written opinion, or (d) by the stockholders of the Corporation.

7. Remedies. The right to indemnification or advancement of expenses as granted by this Article shall be enforceable by Indemnitee in any court of competent jurisdiction. Neither the failure of the Corporation to have made a determination prior to the commencement of such action that indemnification is proper in the circumstances because Indemnitee has met

the applicable standard of conduct, nor an actual determination by the Corporation pursuant to Section 6 of this Article EIGHTH that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct. Indemnitee's expenses (including attorneys' fees) reasonably incurred in connection with successfully establishing Indemnitee's right to advancement of expenses or indemnification, in whole or in part, in any such proceeding shall also be indemnified by the Corporation.

8. Limitations. Notwithstanding anything to the contrary in this Article, except as set forth in Section 7 of this Article EIGHTH, the Corporation shall not indemnify or advance expenses to an Indemnitee pursuant to this Article EIGHTH in connection with a proceeding (or part thereof) initiated by such Indemnitee unless the initiation thereof was approved by the Board of Directors. Notwithstanding anything to the contrary in this Article, the Corporation shall not indemnify or advance expenses to an Indemnitee to the extent such Indemnitee is reimbursed or paid expenses from the proceeds of insurance, and in the event the Corporation makes any indemnification payments or advancement of expenses to an Indemnitee and such Indemnitee is subsequently reimbursed from the proceeds of insurance, such Indemnitee shall promptly refund indemnification payments or advancement of expenses to the Corporation to the extent of such insurance reimbursement.

9. Subsequent Amendment. No amendment, termination or repeal of this Article or of the relevant provisions of the General Corporation Law of Delaware or any other applicable laws shall affect or diminish in any way the rights of any Indemnitee to indemnification or advancement of expenses under the provisions hereof with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the final adoption of such amendment, termination or repeal.

10. Other Rights. The indemnification and advancement of expenses provided by this Article shall not be deemed exclusive of any other rights to which an Indemnitee seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), agreement or vote of stockholders or disinterested directors or otherwise, both as to action in Indemnitee's official capacity and as to action in any other capacity while holding office for the Corporation, and shall continue as to an Indemnitee who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of Indemnitee. Nothing contained in this Article shall be deemed to prohibit, and the Corporation is specifically authorized to enter into, agreements with officers and directors providing indemnification and advancement rights and procedures different from those set forth in this Article. In addition, the Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification and advancement rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article.

11. Partial Indemnification and Advance of Expenses. If an Indemnitee is entitled under any provision of this Article to indemnification or advancement of expenses by the Corporation for some or a portion of the expenses (including attorneys' fees), judgments, fines or amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with any action, suit, proceeding or investigation and any appeal therefrom but not,

however, for the total amount thereof, the Corporation shall nevertheless indemnify or advance expenses to Indemnitee for the portion of such expenses (including attorneys' fees), judgments, fines or amounts paid in settlement to which Indemnitee is entitled.

12. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) against any expense, liability or loss incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law of Delaware.

13. Savings Clause. If this Article or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any expenses (including attorneys' fees), judgments, fines and amounts paid in settlement in connection with any action, suit, proceeding or investigation, whether civil, criminal or administrative, including an action by or in the right of the Corporation, to the fullest extent permitted by any applicable portion of this Article that shall not have been invalidated and to the fullest extent permitted by applicable law.

14. Definitions. Terms used herein and defined in Section 145(h) and Section 145(i) of the General Corporation Law of Delaware shall have the respective meanings assigned to such terms in such Section 145(h) and Section 145(i).

NINTH: This Article is inserted for the management of the business and for the conduct of the affairs of the Corporation.

1. General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

2. Number of Directors; Election of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the Corporation shall be established by the Board of Directors. Until the fifth anniversary of the completion of the initial public offering of Common Stock of the Corporation, any change in the number of directors of the Corporation in any class will require a vote of not less than 75% of the directors then in office. Election of directors need not be by written ballot, except as and to the extent provided in the By-laws of the Corporation.

3. Classes of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. Upon the filing of this Restated Certificate of Incorporation, the Board of Directors shall assign each director then in office to one of the three classes, and, automatically and without any further action, each director shall become a member of the class to which such director is assigned and shall serve for a term of office applicable to such class.

4. Terms of Office. Subject to the rights of holders of any series of Preferred Stock to elect directors, each director shall serve for a term ending on the date of the third annual meeting following the annual meeting at which such director was elected; provided that, with

respect to the directors serving in the initial classes of Class I, Class II and Class III, the terms of the directors serving in Class I shall expire at the Corporation's first annual meeting of stockholders held after the initial assignment of directors to classified terms; the terms of the directors serving in Class II shall expire at the Corporation's second annual meeting of stockholders held after the initial assignment of directors to classified terms; and the terms of the directors serving in Class III shall expire at the third annual meeting of stockholders held after the initial assignment of directors to classified terms; provided, further, that the term of each director shall continue until the election and qualification of his successor and be subject to his earlier death, resignation or removal. A decrease in the number of authorized directors shall not shorten the term of any incumbent director.

5. Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed pursuant to Section 2 of this Article NINTH shall constitute a quorum. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

6. Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors unless a greater number is required by law or by this Certificate of Incorporation.

7. Removal. Subject to the rights of holders of any series of Preferred Stock, directors of the Corporation may be removed only for cause and only by the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast in an election of directors.

8. Vacancies. Subject to the rights of holders of any series of Preferred Stock and except as required by law, any vacancy or newly created directorship in the Board of Directors, however occurring, shall be filled only by the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor and to such director's earlier death, resignation or removal.

9. Appointment and Removal of the Chairman of the Board. Until the fifth anniversary of the completion of the initial public offering of the Common Stock of the Corporation, the appointment and removal of the Chairman of the Board will require a vote of not less than 75% of the directors then in office.

10. Stockholder Nominations and Introduction of Business, Etc. Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before a meeting of stockholders shall be given in the manner provided by the By-laws of the Corporation; provided, however, that no such advance notice shall be required until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation.

11. Amendments to Article. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, (i) until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least a majority of the votes which all the stockholders would be entitled to cast thereon, and (ii) following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast thereon, shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article NINTH.

TENTH: Stockholders of the Corporation may not take any action by written consent in lieu of a meeting. Notwithstanding any other provisions of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, (i) until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least a majority of the votes which all the stockholders would be entitled to cast thereon, and (ii) following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast thereon, shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article TENTH.

ELEVENTH: Special meetings of stockholders for any purpose or purposes may be called at any time by the Board of Directors, the Chairman of the Board or the President, but such special meetings may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting. Notwithstanding any other provision of law, this Certificate of Incorporation or the By-laws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, (i) until the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least a majority of the votes which all the stockholders would be entitled to cast thereon, and (ii) following the second anniversary of the completion of the initial public offering of Common Stock of the Corporation, the affirmative vote of the holders of capital stock representing at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast thereon, shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article ELEVENTH.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation, which restates, integrates and amends the certificate of incorporation of the Corporation, and which has been duly adopted in accordance with Sections 228, 242 and 245 of the Delaware General Corporation Law, has been executed by its duly authorized officer this 20th day of November, 2006.

EMERGENT BIOSOLUTIONS INC.

By: /s/ Fuad El-Hibri

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Name: Fuad El-Hibri

Title: President and Chief Executive Officer

**AMENDED AND RESTATED BY-LAWS  
OF  
EMERGENT BIOSOLUTIONS INC.**

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**ARTICLE I**  
**STOCKHOLDERS**

1.1 Place of Meetings. All meetings of stockholders shall be held at such place as may be designated from time to time by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President or, if not so designated, at the principal office of the corporation.

1.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date and at a time designated by the Board of Directors or the Chairman of the Board (which date shall not be a legal holiday in the place where the meeting is to be held). If no annual meeting is held in accordance with the foregoing provisions, a special meeting may be held in lieu of the annual meeting, and any action taken at that special meeting shall have the same effect as if it had been taken at the annual meeting, and in such case all references in these By-laws to the annual meeting of the stockholders shall be deemed to refer to such special meeting.

1.3 Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time by the Board of Directors, the Chairman of the Board or the President, but such special meetings may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

1.4 Notice of Meetings. Except as otherwise provided by law, notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the General Corporation Law of the State of Delaware) by the stockholder to whom the notice is given. The notices of all meetings shall state the place, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If notice is given by mail, such notice shall be deemed given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. If notice is given by electronic transmission, such notice shall be deemed given at the time specified in Section 232 of the General Corporation Law of the State of Delaware.

1.5 Voting List. The Secretary shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with notice of the meeting, or (b) during ordinary

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business hours, at the principal place of business of the corporation. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

1.6 Quorum. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the holders of capital stock representing a majority in voting power of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business. A quorum, once established at a meeting, shall not be broken by the withdrawal of enough votes to leave less than a quorum. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, where a separate vote by a class or classes or series or series is required, the holders of capital stock representing a majority of the voting power of the shares of such class or classes or series or series, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors, in its sole discretion, or represented by proxy, shall constitute a quorum entitled to take action with respect to that vote.

1.7 Adjournments. Any meeting of stockholders may be adjourned from time to time to any other time and to any other place at which a meeting of stockholders may be held under these By-laws by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum, or, if no stockholder is present, by any officer entitled to preside at or to act as secretary of such meeting. It shall not be necessary to notify any stockholder of any adjournment of 30 days or less if the time and place of the adjourned meeting, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting.

1.8 Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote and held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders may vote in person (including by means of remote communications, if any, by which stockholders may be deemed to be present in person and vote at such meeting) or may authorize another person or persons to vote for such stockholder by a proxy executed or transmitted in a manner permitted by the General Corporation Law of the State of Delaware by the stockholder or such stockholder's authorized agent and delivered (including by electronic transmission) to the Secretary of the corporation. No such proxy shall be voted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

1.9 Action at Meeting. When a quorum is present at any meeting, any matter other than the election of directors to be voted upon by the stockholders at such meeting shall be decided by the affirmative vote of the holders of capital stock representing a majority in voting power of the shares of stock present or represented and voting affirmatively or negatively on such matter (or if a separate vote by a class or classes or series or series is required, then in the

case of each such class or classes or series or series, the holders of capital stock representing a majority in voting power of the shares of stock of such class or classes or series or series present or represented and voting affirmatively or negatively on such matter), except when a different vote is required by law, the Certificate of Incorporation or these By-laws. When a quorum is present at any meeting, any election by stockholders of directors shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

#### 1.10 Nomination of Directors.

(a) Except for (1) any directors entitled to be elected by the holders of preferred stock, (2) any directors elected in accordance with Section 2.8 hereof by the Board of Directors to fill a vacancy or newly-created directorship or (3) as otherwise required by applicable law or stock market regulation, following the second anniversary of the completion of the initial public offering of Common Stock of the corporation, only persons who are nominated in accordance with the procedures in this Section 1.10 shall be eligible for election as directors. Nomination for election to the Board of Directors at a meeting of stockholders may be made (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who (x) complies with the notice procedures set forth in Section 1.10(b), if required pursuant to Section 1.10(a), and (y) is a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such meeting.

(b) To be timely, a stockholder's notice must be received in writing by the Secretary at the principal executive offices of the corporation as follows: (i) in the case of an election of directors at an annual meeting of stockholders, not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that (x) in the case of the first annual meeting of stockholders of the corporation held after the closing of the initial public offering of Common Stock of the corporation or (y) in the event that the date of any other annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs; provided, further, that if the second anniversary of the completion of the initial public offering of Common Stock of the corporation occurs after the tenth day preceding the date that a stockholder's notice must otherwise be so received in accordance with the preceding terms of this clause (i), such notice shall be considered timely if so received on or before the tenth day following public disclosure of the second anniversary of the completion of the initial public offering of Common Stock of the corporation; or (ii) in the case of an election of directors at a special meeting of stockholders, provided that the Board of Directors has determined that directors shall be elected at such meeting, not earlier than the 120th day prior to such special meeting and not later than the close of business on the later of (x) the 90th day prior to such special meeting and (y) the tenth day following the day on which notice of the date of such special meeting was mailed or public disclosure of the date of such special meeting was made, whichever first occurs. In no event shall the adjournment or postponement of an annual meeting (or the public announcement thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth: (A) as to each proposed nominee (1) such person's name, age, business address and, if known, residence address, (2) such person's principal occupation or employment, (3) the class or series and number of shares of stock of the corporation which are beneficially owned by such person, and (4) any other information concerning such person that must be disclosed as to nominees in proxy solicitations pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (B) as to the stockholder giving the notice (1) such stockholder's name and address, as they appear on the corporation's books, (2) the class or series and number of shares of stock of the corporation which are owned, beneficially and of record, by such stockholder, (3) a description of all arrangements or understandings between such stockholder and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made by such stockholder, (4) a representation that such stockholder intends to appear in person or by proxy at the meeting to nominate the person(s) named in its notice and (5) a representation whether the stockholder intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of capital stock representing at least the percentage of voting power of all of the shares of capital stock of the corporation outstanding as of the record date of the annual meeting reasonably believed by such stockholder to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and/or (y) otherwise to solicit proxies from stockholders in support of such nomination; and (C) as to the beneficial owner, if any, on whose behalf the nomination is being made (1) such beneficial owner's name and address, (2) the class and number of shares of stock of the corporation which are beneficially owned by such beneficial owner, (3) a description of all arrangements or understandings between such beneficial owner and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made and (4) a representation whether the beneficial owner intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of capital stock representing at least the percentage of voting power of all of the shares of capital stock of the corporation outstanding as of the record date of the annual meeting reasonably believed by such beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and/or (y) otherwise to solicit proxies from stockholders in support of such nomination. In addition, to be effective, the stockholder's notice must be accompanied by the written consent of the proposed nominee to serve as a director if elected. The corporation may require any proposed nominee to furnish such other information as may reasonably be required to determine the eligibility of such proposed nominee to serve as a director of the corporation. A stockholder shall not have complied with this Section 1.10(b) if the stockholder (or beneficial owner, if any, on whose behalf the nomination is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder's nominee in contravention of the representations with respect thereto required by this Section 1.10.

(c) The chairman of any meeting shall have the power and duty to determine whether a nomination was made in accordance with the provisions of this Section 1.10 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's nominee in compliance with the representations with respect thereto required by this Section 1.10), and if the chairman should determine that a nomination was not made in accordance with the provisions of this Section 1.10, the chairman shall so declare to the meeting and such nomination shall be disregarded.

(d) Except as otherwise required by law, nothing in this Section 1.10 shall obligate the corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board of Directors information with respect to any nominee for director submitted by a stockholder.

(e) Notwithstanding the foregoing provisions of this Section 1.10, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the corporation to present a nomination, such nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the corporation. For purposes of this Section 1.10, to be considered a qualified representative of the stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, at the meeting of stockholders.

(f) For purposes of this Section 1.10, “public disclosure” shall include disclosure in a press release reported by the Dow Jones New Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

#### 1.11 Notice of Business at Annual Meetings.

(a) At any annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (1) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (2) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (3) properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, (i) if such business relates to the nomination of a person for election as a director of the corporation, the procedures in Section 1.10 must be complied with and (ii) if such business relates to any other matter, the business must constitute a proper matter under Delaware law for stockholder action and, if the stockholder meeting at which such business is to be transacted is held after the second anniversary of the completion of the initial public offering of Common Stock of the corporation, the stockholder must (x) have given timely notice thereof in writing to the Secretary in accordance with the procedures set forth in Section 1.11(b) and (y) be a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such annual meeting.

(b) To be timely, a stockholder’s notice must be received in writing by the Secretary at the principal executive offices of the corporation not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year’s annual meeting; provided, however, that (x) in the case of the first annual meeting of stockholders of the corporation held after the completion of the initial public offering of Common Stock of the corporation or (y) in the event that the date of any other annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year’s annual meeting, a stockholder’s notice must be so received not earlier than the 120th day prior to such annual

meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs; provided, further, that if the second anniversary of the completion of the initial public offering of Common Stock of the corporation occurs after the tenth day preceding the date that a stockholder's notice must otherwise be so received in accordance with the preceding terms of this sentence, such notice shall be considered timely if so received on or before the tenth day following public disclosure of the second anniversary of the completion of the initial public offering of Common Stock of the corporation. In no event shall the adjournment or postponement of an annual meeting (or the public announcement thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting (1) a brief description of the business desired to be brought before the annual meeting, the text relating to the business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the By-laws, the language of the proposed amendment), and the reasons for conducting such business at the annual meeting, (2) the name and address, as they appear on the corporation's books, of the stockholder proposing such business, and the name and address of the beneficial owner, if any, on whose behalf the proposal is made, (3) the class and number of shares of stock of the corporation which are owned, of record and beneficially, by the stockholder and beneficial owner, if any, (4) a description of all arrangements or understandings between such stockholder or such beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder and any material interest of the stockholder or such beneficial owner, if any, in such business, (5) a representation that such stockholder intends to appear in person or by proxy at the annual meeting to bring such business before the meeting and (6) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of capital stock representing at least the percentage of voting power of all of the corporation's capital stock outstanding as of the record date of the annual meeting required to approve or adopt the proposal and/or (y) otherwise to solicit proxies from stockholders in support of such proposal. Notwithstanding anything in these By-laws to the contrary, no business shall be conducted at any annual meeting of stockholders except in accordance with the procedures set forth in this Section 1.11. A stockholder shall not have complied with this Section 1.11(b) if the stockholder (or beneficial owner, if any, on whose behalf the nomination is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder's proposal in contravention of the representations with respect thereto required by this Section 1.11.

(c) The chairman of any meeting shall have the power and duty to determine whether business was properly brought before the meeting in accordance with the provisions of this Section 1.11 (including whether the stockholder or beneficial owner, if any, on whose behalf the proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's proposal in compliance with the representation with respect thereto required by this Section 1.11), and if the chairman should determine that business was not properly brought before the meeting in accordance with the

provisions of this Section 1.11, the chairman shall so declare to the meeting and such business shall not be brought before the meeting.

(d) Notwithstanding the foregoing provisions of this Section 1.11, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting of stockholders of the corporation to present business, such business shall not be considered, notwithstanding that proxies in respect of such vote may have been received by the corporation. For purposes of this Section 1.11, to be considered a qualified representative of the stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as a proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, at the meeting of stockholders.

(e) For purposes of this Section 1.11, "public disclosure" shall include disclosure in a press release reported by the Dow Jones New Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

#### 1.12 Conduct of Meetings.

(a) Meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, or in the Chief Executive Officer's absence, by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by (i) until the fifth anniversary of the completion of the initial public offering of Common Stock of the corporation, at least 75% of the directors then in office, or (ii) following the fifth anniversary of the completion of the initial public offering of Common Stock of the corporation, the Board of Directors, or in the absence of such designation by a chairman chosen by vote of the stockholders at the meeting. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chairman of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as shall be

determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

(c) The chairman of the meeting shall announce at the meeting when the polls for each matter to be voted upon at the meeting will be opened and closed. If no announcement is made, the polls shall be deemed to have opened when the meeting is convened and closed upon the final adjournment of the meeting. After the polls close, no ballots, proxies or votes or any revocations or changes thereto may be accepted.

(d) In advance of any meeting of stockholders, the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President shall appoint one or more inspectors of election to act at the meeting and make a written report thereof. One or more other persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is present, ready and willing to act at a meeting of stockholders, the chairman of the meeting shall appoint one or more inspectors to act at the meeting. Unless otherwise required by law, inspectors may be officers, employees or agents of the corporation. Each inspector, before entering upon the discharge of such inspector's duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspector shall have the duties prescribed by law and shall take charge of the polls and, when the vote is completed, shall make a certificate of the result of the vote taken and of such other facts as may be required by law.

1.13 No Action by Consent in Lieu of a Meeting. Stockholders of the corporation may not take any action by written consent in lieu of a meeting.

## ARTICLE II

### DIRECTORS

2.1 General Powers. The business and affairs of the corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the corporation except as otherwise provided by law or the Certificate of Incorporation.

2.2 Number, Election and Qualification. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the corporation shall be established by the Board of Directors. Until the fifth anniversary of the completion of the initial public offering of Common Stock of the corporation, any change in the number of directors of the corporation will require a vote of not less than 75% of the directors then in office. Election of directors need not be by written ballot. Directors need not be stockholders of the corporation.

2.3 Classes of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. The allocation of directors among classes shall be determined by resolution of the Board of Directors.

2.4 Terms of Office. Subject to the rights of holders of any series of Preferred Stock to elect directors, each director shall serve for a term ending on the date of the third annual meeting following the annual meeting at which such director was elected; provided that, with respect to the directors serving in the initial classes of Class I, Class II and Class III, the terms of the directors serving in Class I shall expire at the corporation's first annual meeting of stockholders held after the initial assignment of directors to classified terms; the terms of the directors serving in Class II shall expire at the corporation's second annual meeting of stockholders held after the initial assignment of directors to classified terms; and the terms of the directors serving in Class III shall expire at the third annual meeting of stockholders held after the initial assignment of directors to classified terms; provided, further, that the term of each director shall continue until the election and qualification of a successor and be subject to such director's earlier death, resignation or removal. A decrease in the number of authorized directors shall not shorten the term of any incumbent director.

2.5 Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed by the Board of Directors shall constitute a quorum. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

2.6 Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors unless a greater number is required by law or by the Certificate of Incorporation.

2.7 Removal. Subject to the rights of holders of any series of Preferred Stock, directors of the corporation may be removed only for cause and only by the affirmative vote of the holders of capital stock representing at least 75% of the votes which all the stockholders would be entitled to cast in an election of directors.

2.8 Vacancies. Subject to the rights of holder of any series of Preferred Stock, and, except as required by law, any vacancy or newly-created directorships on the Board of Directors, however occurring, shall be filled only by the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor or until such director's earlier death, resignation or removal.

2.9 Resignation. Any director may resign by delivering a resignation in writing or by electronic transmission to the corporation at its principal office or to the Chairman of the Board, the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event.

2.10 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be

given notice of the determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

2.11 Special Meetings. Special meetings of the Board of Directors may be held at any time and place designated in a call by the Chairman of the Board, the Chief Executive Officer, the President, two or more directors, or by one director in the event that there is only a single director in office.

2.12 Notice of Special Meetings. Notice of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (a) in person or by telephone at least 24 hours in advance of the meeting, (b) by sending written notice via reputable overnight courier, teletype or electronic mail, or delivering written notice by hand, to such director's last known business, home or electronic mail address at least 48 hours in advance of the meeting, or (c) by sending written notice via first-class mail to such director's last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

2.13 Meetings by Conference Communications Equipment. Directors may participate in meetings of the Board of Directors or any committee thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

2.14 Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent to the action in writing or by electronic transmission, and the written consents or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

2.15 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation and may authorize the seal of the corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-laws for the Board of Directors. Except as otherwise provided in the Certificate of

Incorporation, these By-laws, or the resolution of the Board of Directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

2.16 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the corporation or any of its parent or subsidiary entities in any other capacity and receiving compensation for such service.

### **ARTICLE III**

#### **OFFICERS**

3.1 Titles. The officers of the corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including a Chairman of the Board, a Vice Chairman of the Board, and one or more Vice Presidents, Assistant Treasurers, and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

3.2 Election. The Chief Executive Officer, President, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

3.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

3.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the resolution electing or appointing such officer, or until such officer's earlier death, resignation or removal.

3.5 Resignation and Removal. Any officer may resign by delivering a written resignation to the corporation at its principal office or to the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event.

Any officer may be removed at any time, with or without cause, by vote of a majority of the directors then in office, except as otherwise provided by Section 3.7.

Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following such officer's resignation or removal, or any right to damages on account of such removal, whether such officer's compensation be by the month or by the year or otherwise, unless such compensation is expressly provided for in a duly authorized written agreement with the corporation.

3.6 Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of Chief Executive Officer, President, Treasurer and Secretary. Each such successor shall hold office for the unexpired term of such officer's predecessor and until a successor is elected and qualified, or until such officer's earlier death, resignation or removal.

3.7 Chairman of the Board. The Board of Directors may appoint from its members a Chairman of the Board, who need not be an employee or officer of the corporation. Until the fifth anniversary of the completion of the initial public offering of Common Stock of the corporation, the appointment and removal of the Chairman of the Board will require a vote of not less than 75% of the directors then in office. If the Board of Directors appoints a Chairman of the Board, such Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors and, if the Chairman of the Board is also designated as the corporation's Chief Executive Officer, shall have the powers and duties of the Chief Executive Officer prescribed in Section 3.8 of these By-laws. Unless otherwise provided by the Board of Directors, the Chairman of the Board shall preside at all meetings of the Board of Directors and stockholders.

3.8 President; Chief Executive Officer. Unless the Board of Directors has designated the Chairman of the Board or another person as the corporation's Chief Executive Officer, the President shall be the Chief Executive Officer of the corporation. The Chief Executive Officer shall have general charge and supervision of the business of the corporation subject to the direction of the Board of Directors. The President shall perform such other duties and shall have such other powers as the Board of Directors or the Chief Executive Officer (if the President is not the Chief Executive Officer) may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer or the President (if the President is not the Chief Executive Officer), the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the Chief Executive Officer and when so performing such duties shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer.

3.9 Vice Presidents. Any Vice President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors.

3.10 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the chairman of the meeting shall designate a temporary secretary to keep a record of the meeting.

3.11 Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as may from time to time be assigned by the Board of Directors or the Chief Executive Officer. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the corporation, to deposit funds of the corporation in depositories selected in accordance with these By-laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer (or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

3.12 Salaries. Officers of the corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

## ARTICLE IV

### CAPITAL STOCK

4.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the corporation or the whole or any part of any shares of the authorized capital stock of the corporation held in the corporation's treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such lawful consideration and on such terms as the Board of Directors may determine.

4.2 Certificates of Stock. Every holder of stock of the corporation shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, certifying the number and class of shares owned by such holder in the corporation; provided, however, that to the extent permitted by law, the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of stock of the corporation shall be uncertificated shares. Each such certificate shall be signed by, or in the name of the corporation

by, the Chairman or Vice Chairman, if any, of the Board of Directors, or the President or a Vice President, and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the corporation. Any or all of the signatures on the certificate may be a facsimile.

There shall be set forth on the face or back of each certificate representing shares of such class or series of stock of the corporation a statement that the corporation will furnish without charge to each stockholder who so requests a copy of the full text of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

4.3 Transfers. Except as otherwise established by Section 4.4 of these By-laws or by rules and regulations adopted by the Board of Directors, and subject to applicable law, shares of stock may be transferred on the books of the corporation by the surrender to the corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-laws, the corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the corporation in accordance with the requirements of these By-laws.

4.4 Lost, Stolen or Destroyed Certificates. The corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen or destroyed, upon such terms and conditions as the Board of Directors may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity and posting of such bond as the Board of Directors may require for the protection of the corporation or any transfer agent or registrar.

4.5 Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders, or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date (other than a record date for stockholder action by written consent) shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. If no record date is fixed, the record date for determining stockholders for any other purpose (other than stockholder action by consent) shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

**ARTICLE V**  
**GENERAL PROVISIONS**

5.1 Fiscal Year. Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the corporation shall begin on the first day of January of each year and end on the last day of December in each year.

5.2 Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.

5.3 Waiver of Notice. Whenever notice is required to be given by law, by the Certificate of Incorporation or by these By-laws, a written waiver signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before, at or after the time stated in such notice, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

5.4 Voting of Securities. Except as the Board of Directors may otherwise designate, the Chief Executive Officer, the President or the Treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at any meeting of stockholders or securityholders of any other entity, the securities of which may be held by this corporation.

5.5 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

5.6 Certificate of Incorporation. All references in these By-laws to the Certificate of Incorporation shall be deemed to refer to the Restated Certificate of Incorporation of the corporation, as amended and in effect from time to time, including the terms of any certificate of designation of any series of Preferred Stock.

5.7 Severability. Any determination that any provision of these By-laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-laws.

5.8 Pronouns. All pronouns used in these By-laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

**ARTICLE VI**  
**AMENDMENTS**

These By-laws may be altered, amended or repealed, in whole or in part, or new By-laws may be adopted by the Board of Directors or by the stockholders as provided in the Certificate of Incorporation.

\* \* \*

*Approved by the Board of Directors on September 20, 2006*

*Approved by the Stockholders on October 27, 2006*

*Effective November 20, 2006*

**RIGHTS AGREEMENT**

**between**

**EMERGENT BIOSOLUTIONS INC.**

**and**

**AMERICAN STOCK TRANSFER & TRUST COMPANY,**

**as Rights Agent**

**Dated November 14, 2006**

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RIGHTS AGREEMENT

RIGHTS AGREEMENT, dated November 14, 2006 (this "Agreement"), between Emergent BioSolutions Inc., a Delaware corporation (the "Company"), and American Stock Transfer & Trust Company, as Rights Agent (the "Rights Agent").

W I T N E S S E T H

WHEREAS, on September 20, 2006, the Board of Directors of the Company (the "Board") (1) approved the adoption by the Company of a stockholder rights plan to become effective prior to the closing of the Company's initial public offering (the "IPO"), including certain terms and conditions of this Agreement and of rights each initially representing the right to purchase one one-thousandth of a share of Series A Junior Preferred Stock (as defined below) upon the terms and subject to the conditions of this Agreement (the "Rights"); (2) authorized the filing of a Certificate of Designations setting forth the rights, powers and preferences of the Series A Junior Participating Preferred Stock, \$0.001 par value per share, as set forth as Exhibit A to this Agreement (the "Series A Junior Preferred Stock"); (3) delegated to the Pricing Committee of the Board the authority to (a) determine the remaining terms of this Agreement, including the initial exercise price of the Rights, (b) declare a dividend distribution of one Right for each share of Common Stock (as hereinafter defined) of the Company outstanding, (c) fix the record date for such dividend and (d) take such other actions as the Pricing Committee deems necessary or appropriate to adopt and implement the shareholder rights plan and (4) recommended to stockholders that they approve the adoption by the Company of the stockholder rights plan;

WHEREAS, effective October 27, 2006, the stockholders of the Company approved the adoption by the Board of a stockholder rights plan, substantially in the form of this Agreement;

WHEREAS, on November 14, 2006, pursuant to the authority previously delegated to it by the Board, the Pricing Committee (1) approved the terms and conditions of this Agreement, including the initial exercise price of the Rights, (2) authorized and declared a dividend distribution of one Right for each share of Common Stock of the Company outstanding at the close of business on November 15, 2006 (the "Record Date"), and (3) authorized the issuance of one Right (as such number may hereinafter be adjusted pursuant to the provisions of Section 11(i) or Section 11(p) hereof) for each share of Common Stock of the Company issued between the Record Date (whether originally issued or delivered from the Company's treasury) and the earlier of the Distribution Date or the Expiration Date;

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties hereby agree as follows:

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Section 1. Certain Definitions. For purposes of this Agreement, the following terms have the meanings indicated:

(a) “Acquiring Person” shall mean any Person who or which, together with all Affiliates and Associates of such Person, shall be the Beneficial Owner of 15% or more of the shares of Common Stock then outstanding, but shall not include (i) the Company, (ii) any Subsidiary of the Company, (iii) any employee benefit plan of the Company or of any Subsidiary of the Company, (iv) any Person organized, appointed or established by the Company for or pursuant to the terms of any such plan or (v) an Exempted Person. Notwithstanding the foregoing, (x) no Person shall become an “Acquiring Person” as the result of an acquisition of Common Stock by the Company which, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such Person to 15% or more of the shares of Common Stock of the Company then outstanding; provided, however that if a Person shall become the Beneficial Owner of 15% or more of the shares of Common Stock of the Company then outstanding as the result of an acquisition of Common Stock by the Company and shall, following written notice from, or public disclosure by the Company of such share purchases by the Company become the Beneficial Owner of any additional Common Stock of the Company and shall then beneficially own 15% or more of the shares of Common Stock then outstanding, then such Person shall be deemed to be an “Acquiring Person” and (y) if the Board determines in good faith that a Person who would otherwise be an “Acquiring Person,” as defined pursuant to the foregoing provisions of this paragraph (a), has become such inadvertently, and such Person divests as promptly as practicable (as determined in good faith by the Board of Directors), but in any event within 15 Business Days, following receipt of written notice from the Company of such event, of Beneficial Ownership of a sufficient number of shares of Common Stock so that such Person would no longer be an “Acquiring Person,” as defined pursuant to the foregoing provisions of this paragraph (a), then such Person shall not be deemed to be an “Acquiring Person” for any purposes of this Agreement unless and until such Person shall again become an “Acquiring Person.”

(b) “Act” shall mean the Securities Act of 1933, as amended.

(c) “Adjustment Shares” shall have the meaning set forth in Section 11(a)(ii).

(d) “Affiliate” and “Associate” shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) as in effect on the date of this Agreement.

(e) A Person shall be deemed the “Beneficial Owner” of, and shall be deemed to “beneficially own,” any securities:

(i) which such Person or any of such Person’s Affiliates or Associates, directly or indirectly, owns or has the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (other than customary agreements with and between underwriters and selling group members with respect to a bona fide public offering of securities or agreements with or

between Persons and the Company with respect to any other bona fide issuance of securities by the Company to such Persons for resale within 40 days, including without limitation pursuant to Section 4(2) of the Act or Rule 144A or Regulation S promulgated under the Act), whether or not in writing, or upon the exercise of conversion rights, exchange rights, other rights, warrants or options, or otherwise; provided, however, that a Person shall not be deemed the “Beneficial Owner” of, or to “beneficially own,” (A) securities tendered pursuant to a tender or exchange offer made pursuant to, and in accordance with, the applicable provisions of the General Rules and Regulations under the Exchange Act by or on behalf of such Person or any of such Person’s Affiliates or Associates until such tendered securities are accepted for purchase or exchange, (B) securities issuable upon exercise of Rights at any time prior to the occurrence of a Triggering Event, or (C) securities issuable upon exercise of Rights from and after the occurrence of a Triggering Event which Rights were acquired by such Person or any of such Person’s Affiliates or Associates prior to the Distribution Date or pursuant to Section 3(a) or Section 22 hereof (the “Original Rights”) or pursuant to Section 11(i) hereof in connection with an adjustment made with respect to any Original Rights;

(ii) which such Person or any of such Person’s Affiliates or Associates, directly or indirectly, has the right to vote or dispose of or has “beneficial ownership” of (as determined pursuant to Rule 13d-3 of the General Rules and Regulations under the Exchange Act, or any comparable or successor rule), including pursuant to any agreement, arrangement or understanding (other than customary agreements with and between underwriters and selling group members with respect to a bona fide public offering of securities or agreements with or between Persons and the Company with respect to any other bona fide issuance of securities by the Company to such Persons for resale within 40 days, including without limitation pursuant to Section 4(2) of the Act or Rule 144A or Regulation S promulgated under the Act), whether or not in writing; provided, however, that a Person shall not be deemed the “Beneficial Owner” of, or to “beneficially own,” any security under this subparagraph (ii) as a result of an agreement, arrangement or understanding to vote such security if such agreement, arrangement or understanding: (A) arises solely from a revocable proxy or consent given in response to a public proxy or consent solicitation made pursuant to, and in accordance with, the applicable provisions of the General Rules and Regulations under the Exchange Act, and (B) is not then reportable by such Person on Schedule 13D under the Exchange Act (or any comparable or successor report); or

(iii) which are beneficially owned, directly or indirectly, by any other Person with which such Person (or any of such Person’s Affiliates or Associates) has any agreement, arrangement or understanding (other than customary agreements with and between underwriters and selling group members with respect to a bona fide public offering of securities or agreements with or between Persons and the Company with respect to any other bona fide issuance of securities by the Company to such Persons for resale within 40 days, including without limitation pursuant to Section 4(2) of the Act or Rule 144A or Regulation S promulgated under the Act) whether or not in writing, for the purpose of acquiring, holding, voting (except pursuant to a revocable proxy or consent as described in the proviso to subparagraph (ii) of this paragraph (e)) or disposing of any voting securities of the Company.

For all purposes of this Agreement, any calculation of the number of shares of Common Stock outstanding at any particular time, including for purposes of determining the particular percentage of such outstanding shares of Common Stock of which any Person is the Beneficial Owner, shall be made in accordance with the last sentence of Rule 13d-3(d)(1)(i) of the General Rules and Regulations under the Exchange Act.

(f) "Board" shall have the meaning set forth in the WHEREAS clause at the beginning of this Agreement.

(g) "Business Day" shall mean any day other than a Saturday, Sunday or a day on which banking institutions in the State of New York are authorized or obligated by law or executive order to close.

(h) "Close of business" on any given date shall mean 5:00 p.m., New York time, on such date; provided, however, that if such date is not a Business Day it shall mean 5:00 p.m., New York time, on the next succeeding Business Day.

(i) "Common Stock" shall mean the common stock, \$0.001 par value, of the Company, except that "Common Stock" when used with reference to any Person other than the Company shall mean the capital stock of such Person with the greatest voting power, or the equity securities or other equity interest having power to control or direct the management, of such Person. Prior to the closing of the Company's IPO, references to Common Stock shall include both the Company's common stock, par value \$0.001 per share, and the Company's class B non-voting common stock, par value \$.01 per share. For avoidance of doubt, notwithstanding any other provision of this Agreement, immediately prior to the closing of the Company's IPO (at which point, pursuant to the Company's Certificate of Incorporation, each outstanding share of class B non-voting common stock shall automatically convert into one share of the Company's common stock), the Right theretofore attached to each share of class B non-voting common stock shall be cancelled and each share of common stock issued upon conversion of the class B non-voting common stock shall have attached to it one Right.

(j) "Common stock equivalents" shall have the meaning set forth in Section 11(a)(iii) hereof.

(k) "Company" shall have the meaning set forth in the introductory paragraph hereof.

(l) "Current market price" shall have the meaning set forth in Section 11(d)(i) hereof.

(m) "Current Value" shall have the meaning set forth in Section 11(a)(iii) hereof.

(n) "Distribution Date" shall have the meaning set forth in Section 3(a) hereof.

(o) "Equivalent Preferred Stock" shall have the meaning set forth in Section 11(b) hereof.

(p) "Exchange Act" shall have the meaning set forth in Section 1(c) hereof.

(q) "Exchange Ratio" shall have the meaning set forth in Section 24(a) hereof.

(r) "Exempted Person" shall mean (i) Fuad El-Hibri, Nancy El-Hibri and any Person controlled by Fuad El-Hibri or Nancy El-Hibri, (ii) Microscience Investments Limited ("Microscience"), unless and until such time as Microscience, together with its Affiliates and Associates, directly or indirectly, becomes the Beneficial Owner of any additional shares of Common Stock (other than under circumstances described in the second sentence of Section 1(a) hereof and disregarding any shares Microscience is or becomes the Beneficial Owner of solely as a result of the fact that it is a party to any of the pre-IPO stockholder arrangements described in the Company's Registration Statement on Form S-1 relating to its IPO), and (iii) each other holder of the Company's Common Stock immediately prior to the IPO to the extent such person's Beneficial Ownership exceeds 15% solely as a result of the fact that such person is a party to any of the pre-IPO stockholder arrangements described in the Company's Registration Statement on Form S-1 relating to its IPO.

(s) "Expiration Date" shall have the meaning set forth in Section 7(a) hereof.

(t) "Final Expiration Date" shall mean the close of business on November 14, 2016.

(u) "Permitted Offer" shall mean a tender offer or an exchange offer for all outstanding shares of Common Stock at a price and on terms determined, prior to the consummation of such tender offer or exchange offer, by directors constituting at least 75% of all of the members of the Board, after receiving advice from a nationally recognized investment banking firm selected by the Board, to be (a) at a price that is fair to stockholders (taking into account all factors which such members of the Board deem relevant including, without limitation, prices which could reasonably be achieved if the Company or its assets were sold on an orderly basis designed to realize maximum value) and (b) otherwise in the best interests of the Company and its stockholders.

(v) "Person" shall mean any individual, firm, corporation, partnership, limited liability company, limited liability partnership, trust, syndicate or other entity and includes, without limitation, an unincorporated group of persons who, by formal or informal agreement or arrangement (whether or not in writing), have embarked on a common purpose or act.

(w) "Preferred Stock" shall mean shares of Series A Junior Preferred Stock (as defined in the WHEREAS clause at the beginning of this Agreement) and, to the extent that there is not a sufficient number of shares of Series A Junior Preferred Stock authorized to permit the full exercise of the Rights, any other series of Preferred Stock, \$0.001 par value, of the Company designated for such purpose containing terms substantially similar to the terms of the Series A Junior Preferred Stock.

(x) "Principal Party" shall have the meaning set forth in Section 13(b) hereof.

(y) "Purchase Price" shall have the meaning set forth in Section 4(a) hereof.

(z) "Record Date" shall have the meaning set forth in the WHEREAS clause at the beginning of this Agreement.

(aa) "Redemption Date" shall have the meaning set forth in Section 7(a) hereof.

(bb) "Redemption Price" shall have the meaning set forth in Section 23(a) hereof.

(cc) "Rights" shall have the meaning set forth in the WHEREAS clause at the beginning of this Agreement.

(dd) "Rights Agent" shall have the meaning set forth in the introductory paragraph hereof.

(ee) "Rights Certificates" shall have the meaning set forth in Section 3(a) hereof.

(ff) "Section 11(a)(ii) Event" shall mean an acquisition of Common Stock described in the first sentence of Section 11(a)(ii) hereof.

(gg) "Section 11(a)(ii) Trigger Date" shall have the meaning set forth in Section 11(a)(iii) hereof.

(hh) "Section 13 Event" shall mean any event described in clauses (x), (y) or (z) of Section 13(a) hereof.

(ii) "Spread" shall have the meaning set forth in Section 11(a)(iii) hereof.

(jj) "Stock Acquisition Date" shall mean the later of (i) the first date of public announcement (which, for purposes of this definition, shall include, without limitation, a report filed pursuant to Section 13(d) under the Exchange Act) by the Company or an Acquiring Person that an Acquiring Person has become such or (ii) the first date on which an executive officer of the Company has actual knowledge that an Acquiring Person has become such; provided, however that, if such Person is deemed not to be an Acquiring Person pursuant to clause (y) of Section 1(a) hereof, no Stock Acquisition Date shall be deemed to have occurred.

(kk) "Subsidiary" shall mean, with reference to any Person, any corporation or other entity of which an amount of voting securities sufficient to elect at least a majority of the directors (or comparable body) of such corporation or other entity is beneficially owned, directly or indirectly, by such Person, or otherwise controlled by such Person.

(ll) "Substitution Period" shall have the meaning set forth in Section 11(a)(iii) hereof.

(mm) "Trading Day" shall have the meaning set forth in Section 11(d)(i) hereof.

(nn) "Triggering Event" shall mean any Section 11(a)(ii) Event or any Section 13 Event.

Section 2. Appointment of Rights Agent. The Company hereby appoints the Rights Agent to act as agent for the Company and the holders of the Rights (who, in accordance with Section 3 hereof, shall prior to the Distribution Date also be the holders of the Common Stock) in accordance with the terms and conditions hereof, and the Rights Agent hereby accepts such appointment. The Company may from time to time appoint such Co-Rights Agents as it may deem necessary or desirable upon ten (10) days' prior written notice to the Rights Agent. The Rights Agent shall have no duty to supervise, and shall in no event be liable for, the acts or omissions of any such Co-Rights Agent.

Section 3. Issuance of Rights.

(a) Until the earlier of (i) the close of business on the tenth Business Day (or such later date as may be determined by the Board) after the Stock Acquisition Date (or, if the tenth Business Day after the Stock Acquisition Date occurs before the Record Date, the close of business on the Record Date), or (ii) the close of business on the tenth Business Day (or such later date as may be determined by action of the Board) after the date that a tender or exchange offer (other than a Permitted Offer) by any Person (other than the Company, any Subsidiary of the Company, any employee benefit plan of the Company or of any Subsidiary of the Company, or any Person organized, appointed or established by the Company for or pursuant to the terms of any such plan) is first published or sent or given within the meaning of Rule 14d-2 of the General Rules and Regulations under the Exchange Act, if upon consummation thereof, such Person would become an Acquiring Person, (the earlier of (i) and (ii) being herein referred to as the "Distribution Date"), (x) the Rights will be evidenced by the certificates for the Common Stock registered in the names of the holders of the Common Stock (which certificates for Common Stock shall be deemed also to be certificates for Rights) and not by separate certificates, and (y) the Rights will be transferable only in connection with the transfer of the underlying shares of Common Stock (including a transfer to the Company). As soon as practicable after the Distribution Date, the Rights Agent will send by first-class, insured, postage prepaid mail, to each record holder of the Common Stock as of the close of business on the Distribution Date, at the address of such holder shown on the records of the Company, one or more rights certificates, in substantially the form of Exhibit B hereto (the "Rights Certificates"), evidencing one Right for each share of Common Stock so held, subject to adjustment as provided herein. With respect to certificates for the Common Stock outstanding as of the close of business on the Record Date, until the Distribution Date, the Rights will be evidenced by such certificates for the Common Stock and the registered holders of the Common Stock shall also be the registered holders of the associated Rights. In addition, in connection with the issuance or sale of shares of Common Stock following the Distribution Date and prior to the redemption or expiration of the Rights, the Company (i) shall, with respect to shares of Common Stock so issued or sold pursuant to the exercise of stock options or under any employee benefit plan or arrangement, or upon the exercise, conversion or exchange of securities granted or issued by the Company prior to the Distribution Date, and (ii) may, in any other case, if deemed necessary or appropriate by the Board, issue Rights Certificates representing the appropriate number of Rights in connection with such issuance or sale; provided, however, that (x) no such Rights Certificate shall be issued if, and to the extent that, the Company shall be advised by counsel that such

issuance would create a significant risk of material adverse tax consequences to the Company or the Person to whom such Rights Certificate would be issued, and (y) no such Rights Certificate shall be issued if, and to the extent that, appropriate adjustment shall otherwise have been made in lieu of the issuance thereof. In the event that an adjustment in the number of Rights per share of Common Stock has been made pursuant to Sections 11(i) or 11(p) hereof, at the time of distribution of the Rights Certificates, the Company shall make the necessary and appropriate rounding adjustments (in accordance with Section 14(a) hereof) so that Rights Certificates representing only whole numbers of Rights are distributed and cash is paid in lieu of any fractional Rights. As of and after the Distribution Date, the Rights will be evidenced solely by such Rights Certificates.

(b) As promptly as practicable following the Record Date, the Company will send a copy of a Summary of Rights to Purchase Preferred Stock, in substantially the form attached hereto as Exhibit C, by first-class, postage prepaid mail, to each record holder of the Common Stock as of the close of business on the Record Date, at the address of such holder shown on the records of the Company. The failure to send a copy of the Summary of Rights shall not affect the enforceability of any part of this Rights Agreement or the rights of any holder of the Rights. Notwithstanding the foregoing, the Company shall not be required to send a copy of such summary to any purchaser of Common Stock in the IPO if a substantially similar summary is included in the final prospectus relating to the IPO.

(c) Rights shall be issued (i) in respect of all shares of Common Stock that are issued (either as an original issuance or from the Company's treasury) after the Record Date but prior to the earlier of the Distribution Date or the Expiration Date and (ii) in connection with the issuance or sale of shares of Common Stock following the Distribution Date and prior to the redemption or expiration of the Rights (x) with respect to shares of Common Stock so issued or sold pursuant to the exercise of stock options or under any employee benefit plan or arrangement, or upon the exercise, conversion or exchange of securities, granted or issued by the Company prior to the Distribution Date and (y) with respect to shares of Common Stock so issued or sold in any other case, if deemed necessary or appropriate by the Board. Certificates representing such shares of Common Stock (including, without limitation, certificates issued upon transfer or exchange of Common Stock) shall also be deemed to be certificates for Rights, and shall bear the following legend:

This certificate also evidences and entitles the holder hereof to certain Rights as set forth in the Rights Agreement between Emergent BioSolutions Inc. (the "Company") and American Stock Transfer & Trust Company, as Rights Agent, as the same may be amended, restated or renewed from time to time (the "Rights Agreement"), the terms of which are hereby incorporated herein by reference and a copy of which is on file at the principal offices of the Company. Under certain circumstances, as set forth in the Rights Agreement, such Rights will be evidenced by separate certificates and will no longer be evidenced by this certificate. The

Company will mail to the holder of this certificate a copy of the Rights Agreement, as in effect on the date of mailing, without charge promptly after receipt of a written request therefor. Under certain circumstances set forth in the Rights Agreement, Rights issued to, or held by, any Person who is, was or becomes an Acquiring Person or any Affiliate or Associate thereof (as such terms are defined in the Rights Agreement), whether currently held by or on behalf of such Person or by any subsequent holder, may become null and void.

With respect to such certificates containing the foregoing legend, until the earlier of (i) the Distribution Date and (ii) the Expiration Date, the Rights associated with the Common Stock represented by such certificates shall be evidenced by such certificates alone and registered holders of Common Stock shall also be the registered holders of the associated Rights. Notwithstanding this Section 3(c), the omission of a legend shall not affect the enforceability of any part of this Rights Agreement or the rights of any holder of the Rights.

(d) Until the earlier of the Distribution Date and the Expiration Date, the transfer of any certificates representing shares of Common Stock in respect of which Rights have been issued shall also constitute the transfer of the Rights associated with such shares of Common Stock. In the event that the Company purchases or acquires any shares of Common Stock after the Record Date but prior to the Distribution Date, any Rights associated with such shares of Common Stock shall be deemed cancelled and retired so that the Company shall not be entitled to exercise any Rights associated with the shares of Common Stock which are no longer outstanding.

#### Section 4. Form of Rights Certificates.

(a) The Rights Certificates (and the forms of election to purchase, certification and assignment to be printed on the reverse thereof) shall each be substantially in the form set forth in Exhibit B hereto and may have such marks of identification or designation and such legends, summaries or endorsements printed thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Agreement, or as may be required to comply with any applicable law or with any rule or regulation made pursuant thereto or with any rule or regulation of any stock exchange or over-the-counter market on which the Rights may from time to time be listed, or to conform to usage. Subject to the provisions of Sections 7, 11 and 22 hereof, the Rights Certificates, whenever distributed, shall entitle the holders thereof to purchase such number of one one-thousandths of a share of Preferred Stock as shall be set forth therein at the price set forth therein (such exercise price per one one-thousandth of a share, the "Purchase Price"), but the amount and type of securities purchasable upon the exercise of each Right and the Purchase Price thereof shall be subject to adjustment as provided herein.

(b) Any Rights Certificate issued pursuant to Section 3, Section 11(i) or Section 22 hereof that represents Rights beneficially owned by persons known to be: (i) an Acquiring Person or an Associate or Affiliate of an Acquiring Person, (ii) a transferee of an Acquiring

Person (or of any such Associate or Affiliate) who becomes a transferee after the Acquiring Person becomes such, or (iii) a transferee of an Acquiring Person (or of any such Associate or Affiliate) who becomes a transferee prior to or concurrently with the Acquiring Person becoming such and receives such Rights pursuant to either (A) a transfer (whether or not for consideration) from the Acquiring Person to holders of equity interests in such Acquiring Person or to any Person with whom such Acquiring Person has any continuing agreement, arrangement or understanding (whether or not in writing) regarding the transferred Rights or (B) a transfer which the Board has determined is part of a plan, arrangement or understanding (whether or not in writing) that has as a primary purpose or effect avoidance of Section 7(e) hereof, and any Rights Certificate issued pursuant to Section 6 or Section 11 hereof upon transfer, exchange, replacement or adjustment of any other Rights Certificate referred to in this sentence, shall contain (to the extent feasible) the following legend:

The Rights represented by this Rights Certificate are or were beneficially owned by a Person who was or became an Acquiring Person or an Affiliate or Associate of an Acquiring Person (as such terms are defined in the Rights Agreement). Accordingly, this Rights Certificate and the Rights represented hereby may become null and void in the circumstances specified in Section 7(e) of such Agreement.

The provisions of Section 7(e) hereof shall be operative whether or not the foregoing legend is contained on any such Rights Certificate.

Section 5. Countersignature and Registration.

(a) The Rights Certificates shall be executed on behalf of the Company by its Chairman of the Board, President or any Vice President, either manually or by facsimile signature, and shall have affixed thereto the Company's seal or a facsimile thereof, which shall be attested by the Secretary or an Assistant Secretary of the Company, either manually or by facsimile signature. The Rights Certificates shall be countersigned by the Rights Agent, either manually or by facsimile signature, and shall not be valid for any purpose unless so countersigned. In case any officer of the Company who shall have signed any of the Rights Certificates shall cease to be such officer of the Company before countersignature by the Rights Agent and issuance and delivery by the Company, such Rights Certificates, nevertheless, may be countersigned by the Rights Agent and issued and delivered by the Company with the same force and effect as though the person who signed such Rights Certificates had not ceased to be such officer of the Company; and any Rights Certificates may be signed on behalf of the Company by any person who, at the actual date of the execution of such Rights Certificate, shall be a proper officer of the Company to sign such Rights Certificate, although at the date of the execution of this Rights Agreement any such person was not such an officer.

(b) Following the Distribution Date, the Rights Agent shall keep or cause to be kept, at its office designated as the appropriate place for surrender of Rights Certificates upon exercise or transfer, books for registration and transfer of the Rights Certificates issued hereunder. Such

books shall show the names and addresses of the respective holders of the Rights Certificates, the number of Rights evidenced on its face by each of the Rights Certificates, the Rights Certificate number and the date of each of the Rights Certificates.

Section 6. Transfer, Split Up, Combination and Exchange of Rights Certificates; Mutilated, Destroyed, Lost or Stolen Rights Certificates.

(a) Subject to the provisions of Section 4(b), Section 7(e) and Section 14 hereof, at any time after the close of business on the Distribution Date, and at or prior to the close of business on the Expiration Date, any Rights Certificate or Certificates (other than Rights Certificates representing Rights that have become void pursuant to Section 7(e) hereof or that have been exchanged pursuant to Section 24 hereof) may be transferred, split up, combined or exchanged for another Rights Certificate or Certificates, entitling the registered holder to purchase a like number of one one-thousandths of a share of Preferred Stock (or, following a Triggering Event, Common Stock, other securities, cash or other assets, as the case may be) as the Rights Certificate or Certificates surrendered then entitled such holder (or former holder in the case of a transfer) to purchase. Any registered holder desiring to transfer, split up, combine or exchange any Rights Certificate or Certificates shall make such request in writing delivered to the Rights Agent, and shall surrender the Rights Certificate or Certificates to be transferred, split up, combined or exchanged, with the form of assignment and certificate appropriately executed, at the office of the Rights Agent designated for such purpose. Neither the Rights Agent nor the Company shall be obligated to take any action whatsoever with respect to the transfer of any such surrendered Rights Certificate until the registered holder shall have completed and signed the certificate contained in the form of assignment on the reverse side of such Rights Certificate and shall have provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) or Affiliates or Associates thereof as the Company shall reasonably request. Thereupon the Rights Agent shall, subject to Section 4(b), Section 7(e) and Section 14 hereof, countersign and deliver to the Person entitled thereto a Rights Certificate or Rights Certificates, as the case may be, as so requested. The Company may require payment of a sum sufficient to cover any tax or governmental charge that may be imposed in connection with any transfer, split up, combination or exchange of Rights Certificates.

(b) Upon receipt by the Company and the Rights Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of a Rights Certificate, and, in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to them, and reimbursement to the Company and the Rights Agent of all reasonable expenses incidental thereto, and upon surrender to the Rights Agent and cancellation of the Rights Certificate if mutilated, the Company will execute and deliver a new Rights Certificate of like tenor to the Rights Agent for countersignature and delivery to the registered owner in lieu of the Rights Certificate so lost, stolen, destroyed or mutilated.

Section 7. Exercise of Rights; Purchase Price; Expiration Date of Rights.

(a) Subject to Section 7(e) hereof, the registered holder of any Rights Certificate may exercise the Rights evidenced thereby (except as otherwise provided herein including, without

limitation, the restrictions on exercisability set forth in Section 9(c), Section 11(a)(iii) and Section 23 hereof) in whole or in part at any time after the Distribution Date upon surrender of the Rights Certificate, with the form of election to purchase and the certificate on the reverse side thereof duly executed, to the Rights Agent at the office of the Rights Agent designated for such purpose, together with payment of the aggregate Purchase Price with respect to the total number of one one-thousandths of a share of Preferred Stock (or other shares, securities, cash or other assets, as the case may be) as to which such surrendered Rights are then exercisable, at or prior to the earliest of (i) the Final Expiration Date, (ii) the time at which the Rights expire as provided in Section 13(d) hereof, (iii) the time at which the Rights are redeemed as provided in Section 23 hereof (the "Redemption Date") and (iv) the time at which such Rights are exchanged as provided in Section 24 hereof (the earliest of (i), (ii), (iii) and (iv) being herein referred to as the "Expiration Date").

(b) The Purchase Price for each one one-thousandth of a share of Preferred Stock pursuant to the exercise of a Right shall initially be \$150 and shall be subject to adjustment from time to time as provided in Sections 11 and 13(a) hereof and shall be payable in lawful money of the United States of America in accordance with paragraph (c) below.

(c) Upon receipt of a Rights Certificate representing exercisable Rights, with the form of election to purchase and the certificate duly executed, accompanied by payment, with respect to each Right so exercised, of the Purchase Price per one one-thousandth of a share of Preferred Stock (or other shares, securities, cash or other assets, as the case may be) to be purchased and an amount equal to any applicable transfer tax, the Rights Agent shall, subject to Section 20(k) hereof, thereupon promptly (i) (A) requisition from any transfer agent of the shares of Preferred Stock (or make available, if the Rights Agent is the transfer agent for such shares) certificates for the total number of one one-thousandths of a share of Preferred Stock to be purchased and the Company hereby authorizes its transfer agent to comply with such requests, or (B) if the Company shall have elected to deposit the total number of shares of Preferred Stock issuable upon exercise of the Rights hereunder with a depositary agent, requisition from the depositary agent depositary receipts representing such number of one one-thousandths of a share of Preferred Stock as are to be purchased (in which case certificates for the shares of Preferred Stock represented by such receipts shall be deposited by the transfer agent with the depositary agent) and the Company hereby directs the depositary agent to comply with such requests, (ii) requisition from the Company the amount of cash, if any, to be paid in lieu of fractional shares in accordance with Section 14 hereof, (iii) after receipt of such certificates or depositary receipts, cause the same to be delivered to or upon the order of the registered holder of such Rights Certificate, registered in such name or names as may be designated by such holder, and (iv) after receipt thereof, deliver such cash, if any, to or upon the order of the registered holder of such Rights Certificate. The payment of the Purchase Price (as such amount may be reduced pursuant to Section 11(a)(iii) hereof) may be made in cash or by certified bank check or money order payable to the order of the Company. In the event that the Company is obligated to issue other securities (including Common Stock) of the Company, pay cash and/or distribute other property pursuant to Section 11(a) hereof, the Company shall make all arrangements necessary so that

such other securities, cash and/or other property are available for distribution by the Rights Agent, if and when appropriate.

(d) In case the registered holder of any Rights Certificate shall exercise less than all the Rights evidenced thereby, a new Rights Certificate evidencing Rights equivalent to the Rights remaining unexercised shall be issued by the Rights Agent and delivered to, or upon the order of, the registered holder of such Rights Certificate, registered in such name or names as may be designated by such holder, subject to the provisions of Section 14 hereof.

(e) Notwithstanding anything in this Agreement to the contrary, from and after the first occurrence of a Section 11(a)(ii) Event, any Rights beneficially owned by (i) an Acquiring Person or an Associate or Affiliate of an Acquiring Person, (ii) a transferee of an Acquiring Person (or of any such Associate or Affiliate) who becomes a transferee after the Acquiring Person becomes such, or (iii) a transferee of an Acquiring Person (or of any such Associate or Affiliate) who becomes a transferee prior to or concurrently with the Acquiring Person becoming such and receives such Rights pursuant to either (A) a transfer (whether or not for consideration) from the Acquiring Person to holders of equity interests in such Acquiring Person or to any Person with whom the Acquiring Person has any continuing agreement, arrangement or understanding (whether or not in writing) regarding the transferred Rights or (B) a transfer which the Board has determined is part of a plan, arrangement or understanding (whether or not in writing) that has as a primary purpose or effect avoidance of this Section 7(e), shall become null and void without any further action and no holder of such Rights shall have any rights whatsoever with respect to such Rights, whether under any provision of this Agreement or otherwise. No Rights Certificate shall be issued at any time upon the transfer of any Rights to an Acquiring Person whose Rights would be void pursuant to the preceding sentence or any Associate or Affiliate thereof or to any nominee of such Acquiring Person, Associate or Affiliate; and any Rights Certificate delivered to the Rights Agent for transfer to an Acquiring Person whose Rights would be void pursuant to the preceding sentence shall be cancelled. The Company shall use all reasonable efforts to insure that the provisions of this Section 7(e) and Section 4(b) hereof are complied with, but shall have no liability to any holder of Rights Certificates or other Person as a result of its failure to make any determinations with respect to an Acquiring Person or its Affiliates, Associates or transferees hereunder.

(f) Notwithstanding anything in this Agreement to the contrary, neither the Rights Agent nor the Company shall be obligated to undertake any action with respect to a registered holder upon the occurrence of any purported transfer or exercise as set forth in this Section 7 unless such registered holder shall have (i) completed and signed the certificate following the form of assignment or election to purchase set forth on the reverse side of the Rights Certificate surrendered for such assignment or exercise, and (ii) provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) or any Affiliates or Associates thereof as the Company shall reasonably request.

Section 8. Cancellation and Destruction of Rights Certificates. All Rights Certificates surrendered for the purpose of exercise, transfer, split up, combination or exchange shall, if surrendered to the Company or any of its agents, be delivered to the Rights Agent for

cancellation or in cancelled form, or, if surrendered to the Rights Agent, shall be cancelled by it, and no Rights Certificates shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Agreement. The Company shall deliver to the Rights Agent for cancellation and retirement, and the Rights Agent shall so cancel and retire, any other Rights Certificate purchased or acquired by the Company otherwise than upon the exercise thereof. The Rights Agent shall deliver all cancelled Rights Certificates to the Company, or shall, at the written request of the Company, destroy such cancelled Rights Certificates, and in such case shall deliver a certificate of destruction thereof to the Company.

Section 9. Reservation and Availability of Capital Stock.

(a) The Company covenants and agrees that it will cause to be reserved and kept available out of its authorized and unissued shares of Preferred Stock (and, following the occurrence of a Triggering Event, out of its authorized and unissued shares of Common Stock and/or other securities or out of its authorized and issued shares held in its treasury), the number of shares of Preferred Stock (and, following the occurrence of a Triggering Event, Common Stock and/or other securities) that, as provided in this Agreement including Section 11(a)(iii) hereof, will be sufficient to permit the exercise in full of all outstanding Rights.

(b) So long as the shares of Preferred Stock (and, following the occurrence of a Section 11(a)(ii) Event, Common Stock and/or other securities) issuable and deliverable upon the exercise of the Rights may be listed on any national securities exchange or automated quotation system, the Company shall use its best efforts to cause, from and after such time as the Rights become exercisable, all shares reserved for such issuance to be so listed upon official notice of issuance upon such exercise.

(c) The Company shall use its best efforts to (i) file, as soon as practicable following the earliest date after the first occurrence of a Section 11(a)(ii) Event on which the consideration to be delivered by the Company upon exercise of the Rights has been determined in accordance with Section 11(a)(iii) hereof, or as soon as is required by law following the Distribution Date, as the case may be, a registration statement under the Act, with respect to the securities purchasable upon exercise of the Rights on an appropriate form, (ii) cause such registration statement to become effective as soon as practicable after such filing, (iii) cause such registration statement to remain effective (with a prospectus at all times meeting the requirements of the Act) until the earlier of (A) the date as of which the Rights are no longer exercisable for such securities, and (B) the Expiration Date, and (iv) obtain such other regulatory approvals as may be necessary for it to issue securities purchasable upon the exercise of the Rights. The Company will also take such action as may be appropriate under, or to ensure compliance with, the securities or "blue sky" laws of the various states in connection with the exercisability of the Rights. The Company may temporarily suspend, for a period of time not to exceed ninety (90) days after the date set forth in clause (i) of the first sentence of this Section 9(c), the exercisability of the Rights in order to prepare and file such registration statement and permit it to become effective or to obtain any other required regulatory approval in connection with the exercisability of the Rights. Upon any such suspension, the Company shall issue a public announcement stating that the exercisability of the Rights has been temporarily suspended, as well as a public announcement at

such time as the suspension is no longer in effect. Notwithstanding any provision of this Agreement to the contrary, the Rights shall not be exercisable in any jurisdiction unless the requisite registration or qualification in such jurisdiction shall have been effected or obtained.

(d) The Company covenants and agrees that it will take all such action as may be necessary to ensure that all one one-thousandths of a share of Preferred Stock (and, following the occurrence of a Triggering Event, Common Stock and/or other securities) delivered upon exercise of Rights shall, at the time of delivery of the certificates for such shares (subject to payment of the Purchase Price), be duly and validly authorized and issued and fully paid and nonassessable.

(e) The Company further covenants and agrees that it will pay when due and payable any and all federal and state transfer taxes and charges that may be payable in respect of the issuance or delivery of the Rights Certificates and of any certificates for a number of one one-thousandths of a share of Preferred Stock (or Common Stock and/or other securities, as the case may be) upon the exercise of Rights. The Company shall not, however, be required (i) to pay any transfer tax that may be payable in respect of any transfer or delivery of Rights Certificates to a Person other than, or the issuance or delivery of a number of one one-thousandths of a share of Preferred Stock (or Common Stock and/or other securities, as the case may be) in respect of a name other than that of, the registered holder of the Rights Certificate evidencing Rights surrendered for exercise or (ii) to issue or deliver any certificates for a number of one one-thousandths of a share of Preferred Stock (or Common Stock and/or other securities, as the case may be) in a name other than that of the registered holder upon the exercise of any Rights until such tax shall have been paid (any such tax being payable by the holder of such Rights Certificate at the time of surrender) or until it has been established to the Company's satisfaction that no such tax is due.

Section 10. Preferred Stock Record Date. Each Person in whose name any certificate for a number of one one-thousandths of a share of Preferred Stock (or Common Stock and/or other securities, as the case may be) is issued upon the exercise of Rights shall for all purposes be deemed to have become the holder of record of such fractional shares of Preferred Stock (or Common Stock and/or other securities, as the case may be) represented thereby on, and such certificate shall be dated, the date upon which the Rights Certificate evidencing such Rights was duly surrendered with the forms of election and certification duly executed and payment of the Purchase Price (and all applicable transfer taxes) was made; provided, however, that if the date of such surrender and payment is a date upon which the Preferred Stock (or Common Stock and/or other securities, as the case may be) transfer books of the Company are closed, such Person shall be deemed to have become the record holder of such shares (fractional or otherwise) on, and such certificate shall be dated, the next succeeding Business Day on which the Preferred Stock (or Common Stock and/or other securities, as the case may be) transfer books of the Company are open. Prior to the exercise of the Rights evidenced thereby, the holder of a Rights Certificate, as such, shall not be entitled to any rights of a stockholder of the Company with respect to securities for which the Rights shall be exercisable, including, without limitation, the right to vote, to receive dividends or other distributions or to exercise any preemptive rights, and

shall not be entitled to receive any notice of any proceedings of the Company, except as provided herein.

Section 11. Adjustment of Purchase Price, Number and Kind of Shares or Number of Rights. The Purchase Price, the number and kind of shares covered by each Right and the number of Rights outstanding are subject to adjustment from time to time as provided in this Section 11.

(a) (i) In the event the Company shall at any time after the date of this Agreement (A) declare a dividend on the Preferred Stock payable in shares of Preferred Stock, (B) subdivide the outstanding Preferred Stock, (C) combine the outstanding Preferred Stock into a smaller number of shares, or (D) issue any shares of its capital stock in a reclassification of the Preferred Stock (including any such reclassification in connection with a consolidation or merger in which the Company is the continuing or surviving corporation), except as otherwise provided in this Section 11(a) and Section 7(e) hereof, the Purchase Price in effect at the time of the record date for such dividend or of the effective date of such subdivision, combination or reclassification, and the number and kind of shares of Preferred Stock or capital stock, as the case may be, issuable on such date, shall be proportionately adjusted so that the holder of any Right exercised after such time shall be entitled to receive, upon payment of the Purchase Price then in effect, the aggregate number and kind of shares of Preferred Stock or capital stock, as the case may be, which, if such Right had been exercised immediately prior to such date and at a time when the Preferred Stock transfer books of the Company were open, such holder would have owned upon such exercise and been entitled to receive by virtue of such dividend, subdivision, combination or reclassification. If an event occurs that would require an adjustment under both this Section 11(a)(i) and Section 11(a)(ii) hereof, the adjustment provided for in this Section 11(a)(i) shall be in addition to, and shall be made prior to, any adjustment required pursuant to Section 11(a)(ii) hereof.

(ii) Subject to Section 24 of this Agreement, in the event that any Person, alone or together with its Affiliates or Associates, becomes an Acquiring Person (other than pursuant to a Permitted Offer), then, promptly following the first occurrence of such event, proper provision shall be made so that each holder of a Right (except as provided below and in Section 7(e) hereof) shall thereafter have the right to receive (subject to the last sentence of Section 23(a)), upon exercise thereof at the then current Purchase Price in accordance with the terms of this Agreement, in lieu of a number of one one-thousandths of a share of Preferred Stock, such number of shares of Common Stock of the Company that equals the result obtained by (x) multiplying the then current Purchase Price by the then number of one one-thousandths of a share of Preferred Stock for which a Right was exercisable immediately prior to the first occurrence of a Section 11(a)(ii) Event, and (y) dividing that product (which, following such first occurrence, shall thereafter be referred to as the "Purchase Price" for each Right and for all purposes of this Agreement) by 50% of the current market price (determined pursuant to Section 11(d) hereof) per share of Common Stock on the date of such first occurrence (such number of shares, the "Adjustment Shares").

(iii) In the event that the number of shares of Common Stock that are authorized by the Company's Certificate of Incorporation but not outstanding or reserved for issuance for purposes other than upon exercise of the Rights are not sufficient to permit the exercise in full of the Rights in accordance with the foregoing subparagraph (ii) of this Section 11(a), the Company shall: (A) determine the excess of (1) the value of the Adjustment Shares issuable upon the exercise of a Right (the "Current Value") over (2) the Purchase Price (such excess, the "Spread"), and (B) with respect to each Right, make adequate provision to substitute for the Adjustment Shares, upon payment of the applicable Purchase Price, (1) cash, (2) a reduction in the Purchase Price, (3) Common Stock or other equity securities of the Company (including, without limitation, shares, or units of shares, of preferred stock which the Board has deemed to have the same value as shares of Common Stock (such shares of preferred stock, "common stock equivalents")), (4) debt securities of the Company, (5) other assets, or (6) any combination of the foregoing, having an aggregate value equal to the Current Value, where such aggregate value has been determined by the Board based upon the advice of a nationally recognized investment banking firm selected by the Board; provided, however, if the Company shall not have made adequate provision to deliver value pursuant to clause (B) above within thirty (30) days following the later of (x) the first occurrence of a Section 11(a)(ii) Event and (y) the date on which the Company's right of redemption pursuant to Section 23(a) expires (the later of (x) and (y) being referred to herein as the "Section 11(a)(ii) Trigger Date"), then the Company shall be obligated to deliver, upon the surrender for exercise of a Right and without requiring payment of the Purchase Price, shares of Common Stock (to the extent available) and then, if necessary, cash, which shares and/or cash have an aggregate value equal to the Spread. If the Board shall determine in good faith that it is likely that sufficient additional shares of Common Stock could be authorized for issuance upon exercise in full of the Rights, the thirty (30) day period set forth above may be extended to the extent necessary, but not more than ninety (90) days after the Section 11(a)(ii) Trigger Date, in order that the Company may seek shareholder approval for the authorization of such additional shares (such period, as it may be extended in accordance with this sentence until up to ninety (90) days after the Section 11(a)(ii) Trigger Date, the "Substitution Period"). To the extent that the Company determines that some action need be taken pursuant to the first and/or second sentences of this Section 11(a)(iii), the Company (x) shall provide, subject to Section 7(e) hereof, that such action shall apply uniformly to all outstanding Rights, and (y) may suspend the exercisability of the Rights until the expiration of the Substitution Period in order to seek any authorization of additional shares and/or to decide the appropriate form of distribution to be made pursuant to such first sentence and to determine the value thereof. In the event of any such suspension, the Company shall issue a public announcement stating that the exercisability of the Rights has been temporarily suspended, as well as a public announcement at such time as the suspension is no longer in effect. For purposes of this Section 11(a)(iii), the value of the Common Stock shall be the current market price (as determined pursuant to Section 11(d) hereof) per share of the Common Stock on the Section 11(a)(ii) Trigger Date and the value of any "common stock equivalent" shall be deemed to have the same value as the Common Stock on such date.

(b) In case the Company shall fix a record date for the issuance of rights, options or warrants to all holders of Preferred Stock entitling them to subscribe for or purchase (for a period

expiring within forty-five (45) calendar days after such record date) Preferred Stock (or shares having the same rights, privileges and preferences as the shares of Preferred Stock (“equivalent preferred stock”)) or securities convertible into Preferred Stock or equivalent preferred stock at a price per share of Preferred Stock or per share of equivalent preferred stock (or having a conversion price per share, if a security convertible into Preferred Stock or equivalent preferred stock) less than the current market price (as determined pursuant to Section 11(d) hereof) per share of Preferred Stock on such record date, the Purchase Price to be in effect after such record date shall be determined by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, the numerator of which shall be the number of shares of Preferred Stock outstanding on such record date, plus the number of shares of Preferred Stock which the aggregate offering price of the total number of shares of Preferred Stock and/or equivalent preferred stock so to be offered (and/or the aggregate initial conversion price of the convertible securities so to be offered) would purchase at such current market price, and the denominator of which shall be the number of shares of Preferred Stock outstanding on such record date, plus the number of additional shares of Preferred Stock and/or equivalent preferred stock to be offered for subscription or purchase (or into which the convertible securities so to be offered are initially convertible). In case such subscription price may be paid by delivery of consideration part or all of which may be in a form other than cash, the value of such consideration shall be as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent and shall be conclusive for all purposes. Shares of Preferred Stock owned by or held for the account of the Company shall not be deemed outstanding for the purpose of any such computation. Such adjustment shall be made successively whenever such a record date is fixed, and in the event that such rights, options or warrants are not so issued, the Purchase Price shall be adjusted to be the Purchase Price which would then be in effect if such record date had not been fixed.

(c) In case the Company shall fix a record date for a distribution to all holders of Preferred Stock (including any such distribution made in connection with a consolidation or merger in which the Company is the continuing corporation) of evidences of indebtedness, cash (other than a regular quarterly cash dividend out of the earnings or retained earnings of the Company), assets (other than a dividend payable in Preferred Stock, but including any dividend payable in stock other than Preferred Stock) or subscription rights or warrants (excluding those referred to in Section 11(b) hereof), the Purchase Price to be in effect after such record date shall be determined by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, the numerator of which shall be the current market price (as determined pursuant to Section 11(d) hereof) per share of Preferred Stock on such record date, less the fair market value (as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent and shall be conclusive for all purposes) of the portion of the cash, assets or evidences of indebtedness so to be distributed or of such subscription rights or warrants applicable to a share of Preferred Stock and the denominator of which shall be such current market price (as determined pursuant to Section 11(d) hereof) per share of Preferred Stock on such record date. Such adjustments shall be made successively whenever such a record date is fixed, and in the event that such distribution is not so made, the Purchase Price shall be adjusted to be the Purchase Price which would have been in effect if such record date had not been fixed.

(d) (i) For the purpose of any computation hereunder, other than computations made pursuant to Section 11(a)(iii) hereof, the “current market price” per share of Common Stock on any date shall be deemed to be the average of the daily closing prices per share of such Common Stock for the thirty (30) consecutive Trading Days (as such term is hereinafter defined) immediately prior to such date, and for purposes of computations made pursuant to Section 11(a)(iii) hereof, the “current market price” per share of Common Stock on any date shall be deemed to be the average of the daily closing prices per share of such Common Stock for the ten (10) consecutive Trading Days immediately following such date; provided, however, that in the event that the current market price per share of the Common Stock is determined during a period following the announcement by the issuer of such Common Stock of (A) a dividend or distribution on such Common Stock payable in shares of such Common Stock or securities convertible into shares of such Common Stock (other than the Rights), or (B) any subdivision, combination or reclassification of such Common Stock, and prior to the expiration of the requisite thirty (30) Trading Day or ten (10) Trading Day period, as set forth above, after the ex-dividend date for such dividend or distribution, or the record date for such subdivision, combination or reclassification occurs, then, and in each such case, the “current market price” shall be properly adjusted to take into account ex-dividend or post record date trading. The closing price for each day shall be the last sale price, regular way, or, in case no such sale takes place on such day, the average of the closing bid and asked prices, regular way, in either case as reported in the principal consolidated transaction reporting system with respect to securities listed or admitted to trading on the principal national securities exchange on which the shares of Common Stock are listed or admitted to trading or, if the shares of Common Stock are not listed or admitted to trading on any national securities exchange, the last quoted price or, if not so quoted, the average of the high bid and the low asked prices in the over-the-counter market or, if on any such date the shares of Common Stock are not quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the Common Stock selected by the Board. All references in this Section to closing prices, last quoted prices or other stock prices mean prices during regular trading hours, without giving effect to any after-hours or extended hours trading. If on any such date no market maker is making a market in the Common Stock, the fair value of such shares on such date shall be as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent and shall be conclusive for all purposes. The term “Trading Day” shall mean a day on which any national securities exchange on which the shares of Common Stock are listed or admitted to trading is open for the transaction of business or, if the shares of Common Stock are not listed or admitted to trading on any national securities exchange, a Business Day. If the Common Stock is not publicly held or not so listed or traded, “current market price” per share shall mean the fair value per share as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent and shall be conclusive for all purposes.

(ii) For the purpose of any computation hereunder, the “current market price” per share of Preferred Stock shall be determined in the same manner as set forth above for the Common Stock in clause (i) of this Section 11(d) (other than the last sentence thereof). If the current market price per share of Preferred Stock cannot be determined in the manner provided

above or if the Preferred Stock is not publicly held or listed or traded in a manner described in clause (i) of this Section 11(d), the “current market price” per share of Preferred Stock shall be conclusively deemed to be an amount equal to 1000 (as such number may be appropriately adjusted for such events as stock splits, stock dividends and recapitalizations with respect to the Common Stock occurring after the date of this Agreement) multiplied by the current market price per share of the Common Stock. If neither the Common Stock nor the Preferred Stock is publicly held or so listed or traded, “current market price” per share of the Preferred Stock shall mean the fair value per share as determined in good faith by the Board, which determination shall be described in a statement filed with the Rights Agent and shall be conclusive for all purposes. For all purposes of this Agreement, the “current market price” of one one-thousandth of a share of Preferred Stock shall be equal to the “current market price” of one share of Preferred Stock divided by 1000.

(e) Anything herein to the contrary notwithstanding, no adjustment in the Purchase Price shall be required unless such adjustment would require an increase or decrease of at least one percent (1%) in the Purchase Price; provided, however, that any adjustments which by reason of this Section 11(e) are not required to be made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 11 shall be made to the nearest cent or to the nearest ten-millionth of a share of Preferred Stock, or hundred-thousandth of a share of Common Stock or other security, as the case may be. Notwithstanding the first sentence of this Section 11(e), any adjustment required by this Section 11 shall be made no later than the earlier of (i) three years from the date of the transaction which mandates such adjustment, or (ii) the Expiration Date.

(f) If as a result of an adjustment made pursuant to Section 11(a)(ii) or Section 13(a) hereof, the holder of any Right thereafter exercised shall become entitled to receive any securities other than Preferred Stock, thereafter the number of such other securities so receivable upon exercise of any Right and the Purchase Price thereof shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Preferred Stock contained in Sections 11(a), (b), (c), (e), (g), (h), (i), (j), (k) and (m), and the provisions of Sections 7, 9, 10, 13 and 14 hereof with respect to the Preferred Stock shall apply on like terms to any such other securities; provided, however, that the Company shall not be liable for its inability to reserve and keep available for issuance upon exercise of the Rights pursuant to Section 11(a)(ii) a number of shares of Common Stock greater than the number then authorized by the Company’s Certificate of Incorporation but not outstanding or reserved for other purposes.

(g) All Rights originally issued by the Company subsequent to any adjustment made to the Purchase Price hereunder shall evidence the right to purchase, at the adjusted Purchase Price, the number of one one-thousandths of a share of Preferred Stock purchasable from time to time hereunder upon exercise of the Rights, all subject to further adjustment as provided herein.

(h) Unless the Company shall have exercised its election as provided in Section 11(i), upon each adjustment of the Purchase Price as a result of the calculations made in Sections 11(b) and (c), each Right outstanding immediately prior to the making of such adjustment shall

thereafter evidence the right to purchase, at the adjusted Purchase Price, that number of one one-thousandths of a share of Preferred Stock (calculated to the nearest ten-millionth) obtained by (i) multiplying (x) the number of one one-thousandths of a share covered by a Right immediately prior to this adjustment, by (y) the Purchase Price in effect immediately prior to such adjustment of the Purchase Price, and (ii) dividing the product so obtained by the Purchase Price in effect immediately after such adjustment of the Purchase Price.

(i) The Company may elect on or after the date of any adjustment of the Purchase Price to adjust the number of Rights, in lieu of any adjustment in the number of one one-thousandths of a share of Preferred Stock purchasable upon the exercise of a Right. Each of the Rights outstanding after the adjustment in the number of Rights shall be exercisable for the number of one one-thousandths of a share of Preferred Stock for which a Right was exercisable immediately prior to such adjustment. Each Right held of record prior to such adjustment of the number of Rights shall become that number of Rights (calculated to the nearest one-hundred- thousandth) obtained by dividing the Purchase Price in effect immediately prior to adjustment of the Purchase Price by the Purchase Price in effect immediately after adjustment of the Purchase Price. The Company shall make a public announcement of its election to adjust the number of Rights, indicating the record date for the adjustment, and, if known at the time, the amount of the adjustment to be made. This record date may be the date on which the Purchase Price is adjusted or any day thereafter, but, if the Rights Certificates have been issued, shall be at least ten (10) days later than the date of the public announcement. If Rights Certificates have been issued, upon each adjustment of the number of Rights pursuant to this Section 11(i), the Company shall, as promptly as practicable, cause to be distributed to holders of record of Rights Certificates on such record date Rights Certificates evidencing, subject to Section 14 hereof, the additional Rights to which such holders shall be entitled as a result of such adjustment, or, at the option of the Company, shall cause to be distributed to such holders of record in substitution and replacement for the Rights Certificates held by such holders prior to the date of adjustment, and upon surrender thereof, if required by the Company, new Rights Certificates evidencing all the Rights to which such holders shall be entitled after such adjustment. Rights Certificates so to be distributed shall be issued, executed and countersigned in the manner provided for herein (and may bear, at the option of the Company, the adjusted Purchase Price) and shall be registered in the names of the holders of record of Rights Certificates on the record date specified in the public announcement.

(j) Irrespective of any adjustment or change in the Purchase Price or the number of one one-thousandths of a share of Preferred Stock issuable upon the exercise of the Rights, the Rights Certificates theretofore and thereafter issued may continue to express the Purchase Price per one one-thousandth of a share and the number of one one-thousandths of a share which were expressed in the initial Rights Certificates issued hereunder.

(k) Before taking any action that would cause an adjustment reducing the Purchase Price below the then par value, if any, of the number of one one-thousandths of a share of Preferred Stock issuable upon exercise of the Rights, the Company shall take any corporate action which may, in the opinion of its counsel, be necessary in order that the Company may

validly and legally issue such number of one one-thousandths of a share of fully paid and nonassessable Preferred Stock at such adjusted Purchase Price.

(l) In any case in which this Section 11 shall require that an adjustment in the Purchase Price be made effective as of a record date for a specified event, the Company may elect to defer until the occurrence of such event the issuance to the holder of any Right exercised after such record date the number of one one-thousandths of a share of Preferred Stock and other capital stock or securities of the Company, if any, issuable upon such exercise over and above the number of one one-thousandths of a share of Preferred Stock and other capital stock or securities of the Company, if any, issuable upon such exercise on the basis of the Purchase Price in effect prior to such adjustment; provided, however, that the Company shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares (fractional or otherwise) or securities upon the occurrence of the event requiring such adjustment.

(m) Anything in this Section 11 to the contrary notwithstanding, the Company shall be entitled to make such reductions in the Purchase Price, in addition to those adjustments expressly required by this Section 11, as and to the extent that in their good faith judgment the Board shall determine to be advisable in order that any (i) consolidation or subdivision of the Preferred Stock, (ii) issuance wholly for cash of any shares of Preferred Stock at less than the current market price, (iii) issuance wholly for cash of shares of Preferred Stock or securities which by their terms are convertible into or exchangeable for shares of Preferred Stock, (iv) stock dividends or (v) issuance of rights, options or warrants referred to in this Section 11, hereafter made by the Company to holders of its Preferred Stock shall not be taxable to such stockholders.

(n) The Company covenants and agrees that it shall not, at any time after the Distribution Date, (i) consolidate with any other Person (other than a Subsidiary of the Company in a transaction that complies with Section 11(o) hereof), (ii) merge with or into any other Person (other than a Subsidiary of the Company in a transaction which complies with Section 11(o) hereof), or (iii) sell or transfer (or permit any Subsidiary to sell or transfer), in one transaction, or a series of related transactions, assets or earning power aggregating more than 50% of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any other Person or Persons (other than the Company and/or any of its Subsidiaries in one or more transactions each of which complies with Section 11(o) hereof), if (x) at the time of or immediately after such consolidation, merger or sale there are any charter or bylaw provisions or any rights, warrants or other instruments or securities outstanding or agreements in effect that would substantially diminish or otherwise eliminate the benefits intended to be afforded by the Rights or (y) prior to, simultaneously with or immediately after such consolidation, merger or sale, the stockholders of the Person who constitutes, or would constitute, the "Principal Party" for purposes of Section 13(a) hereof shall have received a distribution of Rights previously owned by such Person or any of its Affiliates or Associates. The Company shall not consummate any consolidation, merger, sale or transfer described in clause (i), (ii) or (iii) of the prior sentence unless prior thereto the Company and such other Person shall have executed and delivered to the Rights Agent a supplemental agreement evidencing compliance with this Section 11(n).

(o) The Company covenants and agrees that, after the Distribution Date, it will not, except as permitted by Section 23, Section 24 or Section 27 hereof, take (or permit any Subsidiary to take) any action if at the time such action is taken it is reasonably foreseeable that such action will diminish substantially or otherwise eliminate the benefits intended to be afforded by the Rights.

(p) Anything in this Agreement to the contrary notwithstanding, in the event that the Company shall at any time after the Record Date and prior to the Distribution Date (i) declare or pay any dividend on the outstanding shares of Common Stock payable in shares of Common Stock, (ii) subdivide the outstanding shares of Common Stock, or (iii) combine the outstanding shares of Common Stock into a smaller number of shares, the number of Rights associated with each share of Common Stock then outstanding, or issued or delivered thereafter but prior to the Distribution Date, shall be proportionately adjusted so that the number of Rights thereafter associated with each share of Common Stock following any such event shall equal the result obtained by multiplying the number of Rights associated with each share of Common Stock immediately prior to such event by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to the occurrence of such event and the denominator of which shall be the number of shares of Common Stock outstanding immediately following the occurrence of such event.

Section 12. Certificate of Adjusted Purchase Price or Number of Shares. Whenever an adjustment is made as provided in Section 11 or Section 13 hereof, the Company shall promptly (a) prepare a certificate setting forth such adjustment and a brief statement of the facts accounting for such adjustment, (b) file with the Rights Agent, and with each transfer agent for the Preferred Stock and the Common Stock, a copy of such certificate, and (c) if the Distribution Date has occurred, mail a brief summary thereof to each holder of a Rights Certificate in accordance with Section 26 hereof. The Rights Agent shall be fully protected in relying on any such certificate and on any adjustment therein contained and shall not be deemed to have knowledge of any adjustment unless and until it shall have received such certificate.

Section 13. Consolidation, Merger or Sale or Transfer of Assets or Earning Power.

(a) In the event that, at any time after a Person has become an Acquiring Person, (x) the Company shall consolidate with, or merge with and into, any other Person (other than a Subsidiary of the Company in a transaction that complies with Section 11(o) hereof), and the Company shall not be the continuing or surviving corporation of such consolidation or merger, (y) any Person (other than a Subsidiary of the Company in a transaction that complies with Section 11(o) hereof) shall consolidate with, or merge with or into, the Company, and the Company shall be the continuing or surviving corporation of such consolidation or merger and, in connection with such consolidation or merger, all or part of the outstanding shares of Common Stock shall be changed into or exchanged for stock or other securities of any other Person or cash or any other property, or (z) the Company shall sell or otherwise transfer (or one or more of its Subsidiaries shall sell or otherwise transfer), in one transaction or a series of related transactions, assets or earning power aggregating more than 50% of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any Person or Persons (other than the

Company or any Subsidiary of the Company in one or more transactions each of which complies with Section 11(o) hereof), then, and in each such case and except as contemplated by Section 13(d) hereof, proper provision shall be made so that: (i) each holder of a Right, except as provided in Section 7(e) hereof, shall thereafter have the right to receive, upon the exercise thereof at the then current Purchase Price in accordance with the terms of this Agreement, such number of validly authorized and issued, fully paid, non-assessable and freely tradeable shares of Common Stock of the Principal Party (as such term is hereinafter defined), which shall not be subject to any liens, encumbrances, rights of first refusal or other adverse claims, as shall be equal to the result obtained by (1) multiplying the then current Purchase Price by the number of one one-thousandths of a share of Preferred Stock for which a Right is exercisable immediately prior to the first occurrence of a Section 13 Event (or, if a Section 11(a)(ii) Event has occurred prior to the first occurrence of a Section 13 Event, multiplying the number of such one one-thousandths of a share for which a Right was exercisable immediately prior to the first occurrence of a Section 11(a)(ii) Event by the Purchase Price in effect immediately prior to such first occurrence), and (2) dividing that product (which, following the first occurrence of a Section 13 Event, shall be referred to as the "Purchase Price" for each Right and for all purposes of this Agreement) by 50% of the current market price (determined pursuant to Section 11(d)(i) hereof) per share of the Common Stock of such Principal Party on the date of consummation of such Section 13 Event; (ii) such Principal Party shall thereafter be liable for, and shall assume, by virtue of such Section 13 Event, all the obligations and duties of the Company pursuant to this Agreement; (iii) the term "Company" shall thereafter be deemed to refer to such Principal Party, it being specifically intended that, subject to clause (v) below, the provisions of Section 11 hereof shall apply only to such Principal Party following the first occurrence of a Section 13 Event; (iv) such Principal Party shall take such steps (including, but not limited to, the reservation of a sufficient number of shares of its Common Stock) in connection with the consummation of any such transaction as may be necessary to assure that the provisions hereof shall thereafter be applicable, as nearly as reasonably may be, in relation to its shares of Common Stock thereafter deliverable upon the exercise of the Rights; and (v) the provisions of Section 11(a)(ii) hereof shall be of no effect following the first occurrence of any Section 13 Event.

(b) "Principal Party" shall mean

(i) in the case of any transaction described in clause (x) or (y) of the first sentence of Section 13(a), the Person that is the issuer of any securities into which shares of Common Stock of the Company are converted in such merger or consolidation, and if no securities are so issued, the Person that is the other party to such merger or consolidation; and

(ii) in the case of any transaction described in clause (z) of the first sentence of Section 13(a), the Person that is the party receiving the greatest portion of the assets or earning power transferred pursuant to such transaction or transactions;

provided, however, that in any such case, (1) if the Common Stock of such Person is not at such time and has not been continuously over the preceding twelve (12) month period registered under Section 12 of the Exchange Act, and such Person is a direct or indirect Subsidiary of another

Person the Common Stock of which is and has been so registered, "Principal Party" shall refer to such other Person; (2) in case such Person is a Subsidiary, directly or indirectly, of more than one Person, the Common Stocks of two or more of which are and have been so registered, "Principal Party" shall refer to whichever of such Persons is the issuer of the Common Stock having the greatest aggregate market value; and (3) in case such Person is owned, directly or indirectly, by a joint venture formed by two or more Persons that are not owned, directly or indirectly, by the same Person, the rules set forth in (1) and (2) above shall apply to each of the chains of ownership having an interest in such joint venture as if such party were a "Subsidiary" of both or all of such joint ventures and the Principal Parties in each such chain shall bear the obligations set forth in this Section 13 in the same ratio as their direct or indirect interests in such Person bear to the total of such interests.

(c) The Company shall not consummate any such consolidation, merger, sale or transfer unless the Principal Party shall have a sufficient number of authorized shares of its Common Stock which have not been issued or reserved for issuance to permit the exercise in full of the Rights in accordance with this Section 13 and unless prior thereto the Company and such Principal Party shall have executed and delivered to the Rights Agent a supplemental agreement providing for the terms set forth in paragraphs (a) and (b) of this Section 13 and further providing that, as soon as practicable after the date of any consolidation, merger or sale of assets mentioned in paragraph (a) of this Section 13, the Principal Party will

(i) prepare and file a registration statement under the Act, with respect to the Rights and the securities purchasable upon exercise of the Rights on an appropriate form, and will use its best efforts to cause such registration statement to (A) become effective as soon as practicable after such filing and (B) remain effective (with a prospectus at all times meeting the requirements of the Act) until the Expiration Date;

(ii) use its best efforts to qualify or register the Rights and the securities purchasable upon exercise of the Rights under the blue sky laws of such jurisdictions as may be necessary or appropriate; and

(iii) deliver to holders of the Rights historical financial statements for the Principal Party and each of its Affiliates that comply in all respects with the requirements for registration on Form 10 under the Exchange Act.

The provisions of this Section 13 shall similarly apply to successive mergers or consolidations or sales or other transfers. In the event that a Section 13 Event shall occur at the same time as, or at any time after, the occurrence of a Section 11(a)(ii) Event, the Rights which have not theretofore been exercised shall thereafter become exercisable in the manner described in Section 13(a).

(d) Notwithstanding anything in this Agreement to the contrary, Section 13 shall not be applicable to a transaction described in subparagraphs (x) and (y) of Section 13(a) if (i) such transaction is consummated with a Person or Persons (or a wholly owned subsidiary of any such Person or Persons) who acquired shares of Common Stock pursuant to a Permitted Offer, (ii) the price per share of Common Stock paid in such transaction is not less than the price per share of

Common Stock paid to all holders of shares of Common Stock whose shares were purchased pursuant to such Permitted Offer, and (iii) the form of consideration paid in such transaction is the same as the form of consideration paid pursuant to such Permitted Offer. Upon consummation of any such transaction contemplated by this Section 13(d), all Rights hereunder shall expire.

Section 14. Fractional Rights and Fractional Shares.

(a) The Company shall not be required to issue fractions of Rights, except prior to the Distribution Date as provided in Section 11(i) or (p) hereof, or to distribute Rights Certificates that evidence fractional Rights. In lieu of such fractional Rights, there shall be paid to the registered holders of the Rights Certificates with regard to which such fractional Rights would otherwise be issuable, an amount in cash equal to the same fraction of the current market value of a whole Right. For purposes of this Section 14(a), the current market value of a whole Right shall be the closing price of the Rights for the Trading Day immediately prior to the date on which such fractional Rights would have been otherwise issuable. The closing price of the Rights for any day shall be the last sale price, regular way, or, in case no such sale takes place on such day, the average of the closing bid and asked prices, regular way, in either case as reported in the principal consolidated transaction reporting system with respect to securities listed or admitted to trading on the principal national securities exchange on which the Rights are listed or admitted to trading, or if the Rights are not listed or admitted to trading on any national securities exchange, the last quoted price or, if not so quoted, the average of the high bid and the low asked prices in the over-the-counter market, or if on any such date the Rights are not quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the Rights selected by the Board. All references in this Section to closing prices, last quoted prices or other stock prices means prices during regular trading hours, without giving effect to any after-hours or extended hours trading. If on any such date no such market maker is making a market in the Rights, the fair value of the Rights on such date as determined in good faith by the Board shall be used, which determination shall be described in a statement filed with Rights Agent and shall be conclusive for all purposes.

(b) The Company shall not be required to issue fractions of shares of Preferred Stock (other than fractions which are integral multiples of one one-thousandth of a share of Preferred Stock) upon exercise of the Rights or to distribute certificates that evidence fractional shares of Preferred Stock (other than fractions which are integral multiples of one one-thousandth of a share of Preferred Stock). Fractional shares of Preferred Stock in integral multiples of one one-thousandth of a share of Preferred Stock may, at the election of the Company, be evidenced by depositary receipts; provided, however, that holders of such depositary receipts shall have all of the designations and the powers, preferences and rights, and the qualifications, limitations and restrictions to which they are entitled as beneficial owners of the shares of Preferred Stock represented by such depositary receipts. In lieu of fractional shares of Preferred Stock (other than fractions which are integral multiples of one one-thousandth of a share of Preferred Stock), the Company shall pay to the registered holders of Rights Certificates at the time such Rights are exercised as herein provided an amount in cash equal to the same fraction of the current market

value of one one-thousandth of a share of Preferred Stock. For purposes of this Section 14(b), the current market value of one one-thousandth of a share of Preferred Stock shall be one one-thousandth of the closing price of a share of Preferred Stock (as determined pursuant to Section 11(d)(ii) hereof) for the Trading Day immediately prior to the date of such exercise.

(c) Following the occurrence of a Triggering Event, the Company shall not be required to issue fractions of shares of Common Stock upon exercise of the Rights or to distribute certificates which evidence fractional shares of Common Stock. In lieu of fractional shares of Common Stock, the Company may pay to the registered holders of Rights Certificates at the time such Rights are exercised as herein provided an amount in cash equal to the same fraction of the current market price of one (1) share of Common Stock (as determined pursuant to Section 11(d)(i) hereof) for the Trading Day immediately prior to the date of such exercise.

(d) The holder of a Right by the acceptance of such Right expressly waives his right to receive any fractional Rights or any fractional shares upon exercise of a Right, except as permitted by this Section 14.

Section 15. Rights of Action. All rights of action in respect of this Agreement, except the rights of action expressly given to the Rights Agent in Section 18 hereof, are vested in the respective registered holders of the Rights Certificates (and, prior to the Distribution Date, the registered holders of the Common Stock); and any registered holder of any Rights Certificate (or, prior to the Distribution Date, of the Common Stock), without the consent of the Rights Agent or of the holder of any other Rights Certificate (or, prior to the Distribution Date, of the Common Stock), may, in his own behalf and for his own benefit, enforce, and may institute and maintain any suit, action or proceeding against the Company to enforce, or otherwise act in respect of, his right to exercise the Rights evidenced by such Rights Certificate in the manner provided in such Rights Certificate and in this Agreement. Without limiting the foregoing or any remedies available to the holders of Rights, it is specifically acknowledged that the holders of Rights would not have an adequate remedy at law for any breach of this Agreement and shall be entitled to specific performance of the obligations hereunder and injunctive relief against actual or threatened violations of the obligations hereunder of any Person subject to this Agreement.

Section 16. Agreement of Rights Holders. Every holder of a Right by accepting the same consents and agrees with the Company and the Rights Agent and with every other holder of a Right that:

(a) prior to the Distribution Date, the Rights will be transferable only in connection with the transfer of Common Stock;

(b) after the Distribution Date, the Rights Certificates are transferable only on the registry books of the Rights Agent if surrendered at the office of the Rights Agent designated for such purposes, duly endorsed or accompanied by a proper instrument of transfer and with the appropriate forms and certificates duly completed and fully executed;

(c) subject to Section 6(a) and Section 7(f) hereof, the Company and the Rights Agent may deem and treat the person in whose name a Rights Certificate (or, prior to the Distribution Date, the associated Common Stock certificate) is registered as the absolute owner thereof and of the Rights evidenced thereby (notwithstanding any notations of ownership or writing on the Rights Certificates or the associated Common Stock certificate made by anyone other than the Company or the Rights Agent) for all purposes whatsoever, and neither the Company nor the Rights Agent, subject to the penultimate sentence of Section 7(e) hereof, shall be required to be affected by any notice to the contrary; and

(d) notwithstanding anything in this Agreement to the contrary, neither the Company nor the Rights Agent shall have any liability to any holder of a Right or other Person as a result of its inability to perform any of its obligations under this Agreement by reason of any preliminary or permanent injunction or other order, decree or ruling issued by a court of competent jurisdiction or by a governmental, regulatory or administrative agency or commission, or any statute, rule, regulation or executive order promulgated or enacted by any governmental authority, prohibiting or otherwise restraining performance of such obligation; provided, however, the Company must use its best efforts to prevent the issuance of any such order, decree or ruling and to have any such order, decree or ruling lifted or otherwise overturned as soon as possible.

Section 17. Rights Certificate Holder Not Deemed a Stockholder. No holder, as such, of any Rights Certificate shall be entitled to vote, receive dividends or be deemed for any purpose the holder of the number of one one-thousandths of a share of Preferred Stock or any other securities of the Company which may at any time be issuable on the exercise of the Rights represented thereby, nor shall anything contained herein or in any Rights Certificate be construed to confer upon the holder of any Rights Certificate, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, or to receive notice of meetings or other actions affecting stockholders (except as provided in Section 25 hereof), or to receive dividends or subscription rights, or otherwise, until the Right or Rights evidenced by such Rights Certificate shall have been exercised in accordance with the provisions hereof.

Section 18. Concerning the Rights Agent.

(a) The Company agrees to pay to the Rights Agent reasonable compensation for all services rendered by it hereunder and, from time to time, on demand of the Rights Agent, its reasonable expenses and counsel fees and disbursements and other disbursements incurred in the administration and execution of this Agreement and the exercise and performance of its duties hereunder. The Company also agrees to indemnify the Rights Agent for, and to hold it harmless against, any loss, liability or expense, incurred without gross negligence, bad faith or willful misconduct on the part of the Rights Agent, for anything done or omitted by the Rights Agent in connection with the acceptance and administration of this Agreement, including the costs and expenses of defending against any claim of liability in the premises.

(b) The Rights Agent shall be protected and shall incur no liability for or in respect of any action taken, suffered or omitted by it in connection with its administration of this Agreement in reliance upon any Rights Certificate or certificate for Common Stock or for other securities of the Company, instrument of assignment or transfer, power of attorney, endorsement, affidavit, letter, notice, direction, consent, certificate, statement, or other paper or document believed by it to be genuine and to be signed, executed and, where necessary, verified or acknowledged, by the proper Person or Persons, or otherwise upon the advice of counsel as set forth in Section 20 hereof.

Section 19. Merger or Consolidation or Change of Name of Rights Agent.

(a) Any corporation into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or any corporation resulting from any merger or consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any corporation succeeding to the corporate trust, stock transfer or other shareholder services business of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto; provided that such corporation would be eligible for appointment as a successor Rights Agent under the provisions of Section 21 hereof. In case at the time such successor Rights Agent shall succeed to the agency created by this Agreement, any of the Rights Certificates shall have been countersigned but not delivered, any such successor Rights Agent may adopt the countersignature of a predecessor Rights Agent and deliver such Rights Certificates so countersigned; and in case at that time any of the Rights Certificates shall not have been countersigned, any successor Rights Agent may countersign such Rights Certificates either in the name of the predecessor or in the name of the successor Rights Agent; and in all such cases such Rights Certificates shall have the full force provided in the Rights Certificates and in this Agreement.

(b) In case at any time the name of the Rights Agent shall be changed and at such time any of the Rights Certificates shall have been countersigned but not delivered, the Rights Agent may adopt the countersignature under its prior name and deliver Rights Certificates so countersigned; and in case at that time any of the Rights Certificates shall not have been countersigned, the Rights Agent may countersign such Rights Certificates either in its prior name or in its changed name; and in all such cases such Rights Certificates shall have the full force provided in the Rights Certificates and in this Agreement.

Section 20. Duties of Rights Agent. The Rights Agent undertakes the duties and obligations imposed by this Agreement upon the following terms and conditions, by all of which the Company and the holders of Rights Certificates, by their acceptance thereof, shall be bound:

(a) The Rights Agent may consult with legal counsel (who may be legal counsel for the Company), and the opinion of such counsel shall be full and complete authorization and protection to the Rights Agent as to any action taken or omitted by it in good faith and in accordance with such opinion.

(b) Whenever in the performance of its duties under this Agreement the Rights Agent shall deem it necessary or desirable that any fact or matter (including, without limitation, the identity of any Acquiring Person and the determination of “current market price”) be proved or established by the Company prior to taking or suffering any action hereunder, such fact or matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a certificate signed by the Chairman of the Board, the President, any Vice President, the Treasurer, any Assistant Treasurer, the Secretary or any Assistant Secretary of the Company and delivered to the Rights Agent; and such certificate shall be full authorization to the Rights Agent for any action taken or suffered in good faith by it under the provisions of this Agreement in reliance upon such certificate.

(c) The Rights Agent shall be liable hereunder only for its own gross negligence, bad faith or willful misconduct.

(d) The Rights Agent shall not be liable for or by reason of any of the statements of fact or recitals contained in this Agreement or in the Rights Certificates or be required to verify the same (except as to its countersignature on such Rights Certificates), but all such statements and recitals are and shall be deemed to have been made by the Company only.

(e) The Rights Agent shall not be under any responsibility in respect of the validity of this Agreement or the execution and delivery hereof (except the due execution hereof by the Rights Agent) or in respect of the validity or execution of any Rights Certificate (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Agreement or in any Rights Certificate; nor shall it be responsible for any adjustment required under the provisions of Section 11, Section 13 or Section 24 hereof or responsible for the manner, method or amount of any such adjustment or the ascertaining of the existence of facts that would require any such adjustment (except with respect to the exercise of Rights evidenced by Rights Certificates after receipt of a certificate describing any such adjustment, delivered pursuant to Section 12); nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Common Stock or Preferred Stock to be issued pursuant to this Agreement or any Rights Certificate or as to whether any shares of Common Stock or Preferred Stock will, when so issued, be validly authorized and issued, fully paid and nonassessable.

(f) The Company agrees that it will perform, execute, acknowledge and deliver or cause to be performed, executed, acknowledged and delivered all such further and other acts, instruments and assurances as may reasonably be required by the Rights Agent for the carrying out or performing by the Rights Agent of the provisions of this Agreement.

(g) The Rights Agent is hereby authorized and directed to accept instructions with respect to the performance of its duties hereunder from the Chairman of the Board, the President, any Vice President, the Secretary, any Assistant Secretary, the Treasurer or any Assistant Treasurer of the Company, and to apply to such officers for advice or instructions in connection with its duties, and it shall not be liable for any action taken or suffered to be taken by it in good faith in accordance with instructions of any such officer. Any application by the Rights Agent

for written instructions from the Company may, at the option of the Rights Agent, set forth in writing any action proposed to be taken or omitted by the Rights Agent with respect to its duties or obligations under this Rights Agreement and the date on and/or after which such action shall be taken or omitted and the Rights Agent shall not be liable for any action taken or omitted in accordance with a proposal included in any such application on or after the date specified therein (which date shall not be less than five Business Days after the date any such officer actually receives such application, unless any such officer shall have consented in writing to an earlier date) unless, prior to taking or omitting any such action, the Rights Agent has received written instructions in response to such application specifying the action to be taken or omitted.

(h) The Rights Agent and any stockholder, director, officer or employee of the Rights Agent may buy, sell or deal in any of the Rights or other securities of the Company or become pecuniarily interested in any transaction in which the Company may be interested, or contract with or lend money to the Company or otherwise act as fully and freely as though it were not Rights Agent under this Agreement. Nothing herein shall preclude the Rights Agent from acting in any other capacity for the Company or for any other legal entity.

(i) The Rights Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorneys or agents, and the Rights Agent shall not be answerable or accountable for any act, default, neglect or misconduct of any such attorneys or agents or for any loss to the Company resulting from any such act, default, neglect or misconduct; provided, however, reasonable care was exercised in the selection and continued employment thereof.

(j) No provision of this Agreement shall require the Rights Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of its rights if there shall be reasonable grounds for believing that repayment of such funds or adequate indemnification against such risk or liability is not reasonably assured to it.

(k) If, with respect to any Rights Certificate surrendered to the Rights Agent for exercise or transfer, the certificate attached to the form of assignment or form of election to purchase, as the case may be, has not been completed, the Company and the Rights Agent will deem the beneficial owner of the rights evidenced by such Rights Certificate to be an Acquiring Person or an Affiliate or Associate thereof and such assignment or election to purchase will not be honored.

Section 21. Change of Rights Agent. The Rights Agent or any successor Rights Agent may resign and be discharged from its duties under this Agreement upon thirty (30) days' notice in writing mailed to the Company, and to each transfer agent of the Common Stock and Preferred Stock, by registered or certified mail, and, if such resignation occurs after the Distribution Date to the registered holders of the Rights Certificates by first-class mail. The Company may remove the Rights Agent or any successor Rights Agent upon thirty (30) days' notice in writing, mailed to the Rights Agent or successor Rights Agent, as the case may be, and to each transfer agent of the Common Stock and Preferred Stock, by registered or certified mail,

and, if such removal occurs after the Distribution Date, to the registered holders of the Rights Certificates by first-class mail. If the Rights Agent shall resign or be removed or shall otherwise become incapable of acting, the Company shall appoint a successor to the Rights Agent. If the Company shall fail to make such appointment within a period of thirty (30) days after giving notice of such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Rights Agent or by the holder of a Rights Certificate (who shall, with such notice, submit his Rights Certificate for inspection by the Company), then any registered holder of any Rights Certificate may apply to any court of competent jurisdiction for the appointment of a new Rights Agent. Any successor Rights Agent, whether appointed by the Company or by such a court, shall be (a) a legal business entity organized and doing business under the laws of the United States (or of any state of the United States) in good standing, which is authorized under such laws to exercise corporate trust, stock transfer or shareholder services powers and which has at the time of its appointment as Rights Agent a combined capital and surplus of at least \$50,000,000 or (b) an affiliate of a legal business entity described in clause (a) of this sentence. After appointment, the successor Rights Agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Rights Agent without further act or deed; but the predecessor Rights Agent shall deliver and transfer to the successor Rights Agent any property at the time held by it hereunder, and execute and deliver any further assurance, conveyance, act or deed necessary for the purpose. Not later than the effective date of any such appointment, the Company shall file notice thereof in writing with the predecessor Rights Agent and each transfer agent of the Common Stock and the Preferred Stock, and, if such appointment occurs after the Distribution Date, mail a notice thereof in writing to the registered holders of the Rights Certificates. Failure to give any notice provided for in this Section 21, however, or any defect therein, shall not affect the legality or validity of the resignation or removal of the Rights Agent or the appointment of the successor Rights Agent, as the case may be.

Section 22. Issuance of New Rights Certificates. Notwithstanding any of the provisions of this Agreement or of the Rights to the contrary, the Company may, at its option, issue new Rights Certificates evidencing Rights in such form as may be approved by the Board to reflect any adjustment or change in the Purchase Price and the number or kind or class of shares or other securities or property purchasable under the Rights Certificates made in accordance with the provisions of this Agreement.

Section 23. Redemption.

(a) The Board may, at its option, at any time prior to the earlier of (i) the close of business on the tenth Business Day (or such later date as may be determined by the Board pursuant to clause (i) of the first sentence of Section 3(a) with respect to the Distribution Date) following the Stock Acquisition Date (or, if the Stock Acquisition Date shall have occurred prior to the Record Date, the close of business on the tenth Business Day following the Record Date) and (ii) the Final Expiration Date, redeem all but not less than all the then outstanding Rights at a redemption price of \$0.001 per Right, as such amount may be appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (such redemption price being hereinafter referred to as the "Redemption Price"). The redemption of the Rights by the Board may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish. The Company may, at its option, pay the Redemption Price in cash, shares of Common Stock (based on the "current market price," as defined in Section 11(d)(i) hereof, of the Common Stock at the time of redemption) or any other form of consideration, or any combination of any of the foregoing, deemed appropriate by the Board. Notwithstanding anything contained in this Agreement to the contrary, the Rights shall not be exercisable after the first occurrence of a Section 11(a)(ii) Event until such time as the Company's right of redemption hereunder has expired.

(b) Immediately upon the action of the Board ordering the redemption of the Rights, evidence of which shall have been filed with the Rights Agent and without any further action and without any notice, the right to exercise the Rights shall terminate and the only right thereafter of the holders of Rights shall be to receive the Redemption Price for each Right so held. Promptly after the action of the Board ordering the redemption of the Rights, the Company shall give notice of such redemption to the Rights Agent and the holders of the then outstanding Rights by mailing such notice to all such holders at each holder's last address as it appears upon the registry books of the Rights Agent or, prior to the Distribution Date, on the registry books of the Transfer Agent for the Common Stock. Any notice which is mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each such notice of redemption will state the method by which the payment of the Redemption Price will be made.

(c) In the event of a redemption of the Rights in accordance with this Agreement, the Company may, at its option, discharge all of its obligations with respect to the Rights by (i) issuing a press release announcing the manner of redemption of the Rights in accordance with this Agreement and (ii) mailing payment of the Redemption Price to the registered holders of the Rights at their last addresses as they appear on the registry books of the Rights Agent or, prior to the Distribution Date, on the registry books of the Transfer Agent of the Common Stock, and upon such action, all outstanding Rights and Right Certificates shall be null and void without any further action by the Company.

Section 24. Exchange.

(a) The Board may, at its option, at any time after a Section 11(a)(ii) Event, exchange all or part of the then outstanding and exercisable Rights (which (i) shall not include Rights that have become void pursuant to the provisions of Section 7(e) hereof, and (ii) shall include, without limitation, any Rights issued after the Distribution Date) for shares of Common Stock at an exchange ratio of one share of Common Stock per Right, appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (such exchange ratio being hereinafter referred to as the "Exchange Ratio"). Notwithstanding the foregoing, the Board shall not be empowered to effect such exchange at any time after any Person (other than the Company, any Subsidiary of the Company, any employee benefit plan of the Company or any such Subsidiary, or any entity holding Common Stock for or pursuant to the terms of any such plan), together with all Affiliates and Associates of such Person, becomes the Beneficial Owner of 50% or more of the shares of Common Stock then outstanding.

(b) Immediately upon the action of the Board ordering the exchange of any Rights pursuant to subsection (a) of this Section 24, evidence of which shall have been filed with the Rights Agent, and without any further action and without any notice, the right to exercise such Rights shall terminate and the only right thereafter of a holder of such Rights shall be to receive that number of shares of Common Stock equal to the number of such Rights held by such holder multiplied by the Exchange Ratio. The Company shall promptly give public notice of any such exchange; provided, however, that the failure to give, or any defect in, such notice shall not affect the validity of such exchange. The Company promptly shall mail a notice of any such exchange to all of the holders of such Rights at their last addresses as they appear upon the registry books of the Rights Agent. Any notice which is mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each such notice of exchange shall state the method by which the exchange of shares of Common Stock for Rights will be effected and, in the event of any partial exchange, the number of Rights which will be exchanged. Any partial exchange shall be effected pro rata based on the number of Rights (other than Rights which have become void pursuant to the provisions of Section 7(e) hereof) held by each holder of Rights.

(c) In any exchange pursuant to this Section 24, the Company, at its option, may substitute Preferred Stock (or equivalent preferred stock, as such term is defined in Section 11(b) hereof) for shares of Common Stock exchangeable for Rights, at the initial rate of one one-thousandth of a share of Preferred Stock (or equivalent preferred stock) for each share of Common Stock, as appropriately adjusted to reflect adjustments in the voting rights of the Preferred Stock pursuant to Section 3(A) of the Certificate of Designations attached hereto as Exhibit A, so that the fraction of a share of Preferred Stock (or equivalent preferred stock) delivered in lieu of each share of Common Stock shall have the same voting rights as one share of Common Stock.

(d) In the event that there shall not be sufficient shares of Common Stock or Preferred Stock issued but not outstanding or authorized but unissued to permit any exchange of Rights as contemplated in accordance with this Section 24, the Company shall take all such action as may

be necessary to authorize additional shares of Common Stock or Preferred Stock for issuance upon exchange of the Rights.

(e) The Company shall not be required to issue fractions of shares of Common Stock or to distribute certificates which evidence fractional shares of Common Stock. In lieu of such fractional shares of Common Stock, there shall be paid to the registered holders of the Right Certificates with regard to which such fractional shares of Common Stock would otherwise be issuable, an amount in cash equal to the same fraction of the current market value of a whole share of Common Stock. For the purposes of this subsection (e), the current market value of a whole share of Common Stock shall be the closing price per share of Common Stock (as determined pursuant to the second sentence of Section 11(d)(i) hereof) for the Trading Day immediately prior to the date of exchange pursuant to this Section 24.

Section 25. Notice of Certain Events.

(a) In case the Company shall propose, at any time after the Distribution Date, (i) to pay any dividend payable in stock of any class to the holders of Preferred Stock or to make any other distribution to the holders of Preferred Stock (other than a regular quarterly cash dividend out of earnings or retained earnings of the Company), or (ii) to offer to the holders of Preferred Stock rights or warrants to subscribe for or to purchase any additional shares of Preferred Stock or shares of stock of any class or any other securities, rights or options, or (iii) to effect any reclassification of its Preferred Stock (other than a reclassification involving only the subdivision of outstanding shares of Preferred Stock), or (iv) to effect any consolidation or merger into or with any other Person (other than a Subsidiary of the Company in a transaction which complies with Section 11(o) hereof), or to effect any sale or other transfer (or to permit one or more of its Subsidiaries to effect any sale or other transfer), in one transaction or a series of related transactions, of more than 50% of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any other Person or Persons (other than the Company and/or any of its Subsidiaries in one or more transactions each of which complies with Section 11(o) hereof), or (v) to effect the liquidation, dissolution or winding up of the Company, then, in each such case, the Company shall give to each holder of a Rights Certificate, to the extent feasible and in accordance with Section 26 hereof, a notice of such proposed action, which shall specify the record date for the purposes of such stock dividend, distribution of rights or warrants, or the date on which such reclassification, consolidation, merger, sale, transfer, liquidation, dissolution, or winding up is to take place and the date of participation therein by the holders of the shares of Preferred Stock, if any such date is to be fixed, and such notice shall be so given in the case of any action covered by clause (i) or (ii) above at least twenty (20) days prior to the record date for determining holders of the shares of Preferred Stock for purposes of such action, and in the case of any such other action, at least twenty (20) days prior to the date of the taking of such proposed action or the date of participation therein by the holders of the shares of Preferred Stock, whichever shall be the earlier.

(b) In case a Section 11(a)(ii) Event shall occur, then, in any such case, (i) the Company shall as soon as practicable thereafter give to each holder of a Rights Certificate, to the extent feasible and in accordance with Section 26 hereof, a notice of the occurrence of such

event, which shall specify the event and the consequences of the event to holders of Rights under Section 11(a)(ii) hereof, and (ii) all references in the preceding paragraph to Preferred Stock shall be deemed thereafter to refer also to Common Stock and/or, if appropriate, other securities; provided that the failure to give such notice shall not affect the validity of such consent.

Section 26. Notices. Notices or demands authorized by this Agreement to be given or made by the Rights Agent or by the holder of any Rights Certificate to or on the Company shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Rights Agent) as follows:

Emergent BioSolutions, Inc.  
300 Professional Drive  
Gaithersburg, MD 20879

Attention: Chief Executive Officer

Subject to the provisions of Section 21, any notice or demand authorized by this Agreement to be given or made by the Company or by the holder of any Rights Certificate to or on the Rights Agent shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Company) as follows:

American Stock Transfer Trust Company  
59 Maiden Lane  
New York, NY 10038

Attention: General Counsel

Notices or demands authorized by this Agreement to be given or made by the Company or the Rights Agent to the holder of any Rights Certificate (or, if prior to the Distribution Date, to the holder of certificates representing shares of Common Stock) shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed to such holder at the address of such holder as shown on the registry books of the Company.

Section 27. Supplements and Amendments. Except as provided in the penultimate sentence of this Section 27, for so long as the Rights are then redeemable, the Company may, in its sole and absolute discretion, and the Rights Agent shall, if the Company so directs, supplement or amend any provision of this Agreement in any respect without the approval of any holders of the Rights. At any time when the Rights are no longer redeemable, except as provided in the penultimate sentence of this Section 27, the Company may, and the Rights Agent shall, if the Company so directs, supplement or amend this Agreement without the approval of any holders of Rights in order (i) to cure any ambiguity or (ii) to correct or supplement any provision contained herein which may be defective or inconsistent with any other provisions herein, provided that no such supplement or amendment shall adversely affect the interests of the holders of Rights as such (other than an Acquiring Person or an Affiliate or Associate of an Acquiring Person). Upon the delivery of a certificate from an appropriate officer of the

Company which states that the proposed supplement or amendment is in compliance with the terms of this Section 27, the Rights Agent shall execute such supplement or amendment. Any supplement or amendment that the Rights Agent is required to sign pursuant to this Section 27 shall be effective upon execution by the Company (whether or not then executed by the Rights Agent or the certificate referred to in the immediately preceding sentence has been delivered). Notwithstanding anything contained in this Agreement to the contrary, no supplement or amendment shall be made which changes the Redemption Price. Prior to the Distribution Date, the interests of the holders of Rights shall be deemed coincident with the interests of the holders of Common Stock.

Section 28. Successors. All the covenants and provisions of this Agreement by or for the benefit of the Company or the Rights Agent shall bind and inure to the benefit of their respective successors and assigns hereunder.

Section 29. Actions by the Board, etc. The Board shall have the exclusive power and authority to administer this Agreement and to exercise all rights and powers specifically granted to the Board or to the Company, or as may be necessary or advisable in the administration of this Agreement, including, without limitation, the right and power to (i) interpret the provisions of this Agreement, and (ii) make all determinations deemed necessary or advisable for the administration of this Agreement (including a determination to redeem or not redeem the Rights or to amend this Agreement). All such actions, calculations, interpretations and determinations (including, for purposes of clause (y) below, all omissions with respect to the foregoing) which are done or made by the Board in good faith, shall (x) be final, conclusive and binding on the Company, the Rights Agent, the holders of the Rights and all other parties, and (y) not subject the Board or any director serving on the Board to any liability to the holders of the Rights.

Section 30. Benefits of this Agreement. Nothing in this Agreement shall be construed to give to any Person other than the Company, the Rights Agent and the registered holders of the Rights Certificates (and, prior to the Distribution Date, registered holders of the Common Stock) any legal or equitable right, remedy or claim under this Agreement; but this Agreement shall be for the sole and exclusive benefit of the Company, the Rights Agent and the registered holders of the Rights Certificates (and, prior to the Distribution Date, registered holders of the Common Stock).

Section 31. Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated; provided, however, that notwithstanding anything in this Agreement to the contrary, if any such term, provision, covenant or restriction is held by such court or authority to be invalid, void or unenforceable and the Board determines in its good faith judgment that severing the invalid, void or unenforceable language from this Agreement would adversely affect the purpose or effect of this Agreement, the right of redemption set forth in Section 23 hereof shall be reinstated and shall not expire until the close of business on the tenth day following the date of such determination by the Board.

Section 32. Governing Law. This Agreement, each Right and each Rights Certificate issued hereunder shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the laws of Delaware applicable to contracts made and to be performed entirely within Delaware.

Section 33. Counterparts. This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 34. Descriptive Headings. Descriptive headings of the several Sections of this Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and their respective corporate seals to be hereunto affixed and attested, all as of the day and year first above written.

Attest:

EMERGENT BIOSOLUTIONS INC.

By: /s/ Daniel J. Abdun-Nabi

By: /s/ Fuad El-Hibri

Name: Daniel J. Abdun-Nabi

Name: Fuad El-Hibri

Title: Senior VP and General Counsel

Title: Chief Executive Officer

Attest:

AMERICAN STOCK TRANSFER & TRUST COMPANY,  
AS RIGHTS AGENT

By: /s/ Paula Caroppoli

By: /s/ Herbert J. Lemmer

Name: Paula Caroppoli

Name: Herbert J. Lemmer

Title: Vice President

Title: Vice President

**FORM OF  
CERTIFICATE OF DESIGNATIONS  
OF  
SERIES A JUNIOR PARTICIPATING PREFERRED STOCK  
OF  
EMERGENT BIOSOLUTIONS INC.**

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Emergent BioSolutions Inc., a corporation organized and existing under the laws of the State of Delaware (hereinafter called the "Corporation"), hereby certifies that the following resolution was adopted by the Board of Directors of the Corporation at a meeting duly called and held on September 20, 2006:

RESOLVED: That pursuant to the authority granted to and vested in the Board of Directors of the Corporation (hereinafter called the "Board") in accordance with the provisions of the Certificate of Incorporation, as amended, the Board hereby creates a series of Preferred Stock, \$0.001 par value per share (the "Preferred Stock"), of the Corporation and hereby states the designation and number of shares, and fixes the relative rights, preferences and limitations thereof as follows:

**Series A Junior Participating Preferred Stock:**

Section 1. Designation and Amount. The shares of such series shall be designated as "Series A Junior Participating Preferred Stock" (the "Series A Preferred Stock") and the number of shares constituting the Series A Preferred Stock shall be One Hundred Thousand (100,000). Such number of shares may be increased or decreased by resolution of the Board prior to issuance; 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 shares reserved for issuance upon the exercise of outstanding options, rights or warrants or upon the conversion of any outstanding securities issued by the Corporation convertible into Series A Preferred Stock.

Section 2. Dividends and Distributions.

(A) Subject to the rights of the holders of any shares of any series of Preferred Stock (or any similar stock) ranking prior and superior to the Series A Preferred Stock with respect to dividends, the holders of shares of Series A Preferred Stock, in preference to the holders of Common Stock, par value \$0.001 per share (the "Common Stock"), of the Corporation, and of

any other junior stock, shall be entitled to receive, when, as and if declared by the Board out of funds of the Corporation legally available for the payment of dividends, quarterly dividends payable in cash on the last day of each fiscal quarter of the Corporation in each year (each such date being referred to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series A Preferred Stock, in an amount per share (rounded to the nearest cent) equal to the greater of (a) \$10 or (b) subject to the provision for adjustment hereinafter set forth, 1000 times the aggregate per share amount of all cash dividends, and 1000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions, other than a dividend payable in shares of Common Stock or a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise), declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series A Preferred Stock. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under clause (b) of the preceding sentence shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event. In the event the Corporation shall at any time declare or pay any dividend on the Series A Preferred Stock payable in shares of Series A Preferred Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Series A Preferred Stock (by reclassification or otherwise than by payment of a dividend in shares of Series A Preferred Stock) into a greater or lesser number of shares of Series A Preferred Stock, then in each such case the amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under clause (b) of the first sentence of this Section 2(A) shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Series A Preferred Stock that were outstanding immediately prior to such event and the denominator of which is the number of shares of Series A Preferred Stock outstanding immediately after such event.

(B) The Corporation shall declare a dividend or distribution on the Series A Preferred Stock as provided in paragraph (A) of this Section immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock) and the Corporation shall pay such dividend or distribution on the Series A Preferred Stock before the dividend or distribution declared on the Common Stock is paid or set apart; provided that, in the event no dividend or distribution shall have been declared on the Common Stock during the period between any Quarterly Dividend Payment Date and the next subsequent Quarterly Dividend Payment Date, a dividend of \$10 per share on the Series A Preferred Stock shall nevertheless be payable on such subsequent Quarterly Dividend Payment Date.

(C) Dividends shall begin to accrue and be cumulative on outstanding shares of Series A Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series A Preferred Stock entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Series A Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board may fix a record date for the determination of holders of shares of Series A Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than 60 days prior to the date fixed for the payment thereof.

Section 3. Voting Rights. The holders of shares of Series A Preferred Stock shall have the following voting rights:

(A) Subject to the provision for adjustment hereinafter set forth, each share of Series A Preferred Stock shall entitle the holder thereof to 1000 votes on all matters submitted to a vote of the stockholders of the Corporation. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event. In the event the Corporation shall at any time declare or pay any dividend on the Series A Preferred Stock payable in shares of Series A Preferred Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Series A Preferred Stock (by reclassification or otherwise than by payment of a dividend in shares of Series A Preferred Stock) into a greater or lesser number of shares of Series A Preferred Stock, then in each such case the number of votes per share to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Series A Preferred Stock that were outstanding immediately prior to such event and the denominator of which is the number of shares of Series A Preferred Stock outstanding immediately after such event.

(B) Except as otherwise provided herein, in the Certificate of Incorporation or by law, the holders of shares of Series A Preferred Stock and the holders of shares of Common Stock and

any other capital stock of the Corporation having general voting rights shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation.

(C) (i) If at any time dividends on any Series A Preferred Stock shall be in arrears in an amount equal to six quarterly dividends thereon, the holders of the Series A Preferred Stock, voting as a separate series from all other series of Preferred Stock and classes of capital stock, shall be entitled to elect two members of the Board in addition to any Directors elected by any other series, class or classes of securities and the authorized number of Directors will automatically be increased by two. Promptly thereafter, the Board of the Corporation shall, as soon as may be practicable, call a special meeting of holders of Series A Preferred Stock for the purpose of electing such members of the Board. Such special meeting shall in any event be held within 45 days of the occurrence of such arrearage.

(ii) During any period when the holders of Series A Preferred Stock, voting as a separate series, shall be entitled and shall have exercised their right to elect two Directors, then, and during such time as such right continues, (a) the then authorized number of Directors shall be increased by two, and the holders of Series A Preferred Stock, voting as a separate series, shall be entitled to elect the additional Directors so provided for, and (b) each such additional Director shall not be a member of any existing class of the Board, but shall serve until the next annual meeting of stockholders for the election of Directors, or until his successor shall be elected and shall qualify, or until his right to hold such office terminates pursuant to the provisions of this Section 3(C).

(iii) A Director elected pursuant to the terms hereof may be removed with or without cause by the holders of Series A Preferred Stock entitled to vote in an election of such Director.

(iv) If, during any interval between annual meetings of stockholders for the election of Directors and while the holders of Series A Preferred Stock shall be entitled to elect two Directors, there is no such Director in office by reason of resignation, death or removal, then, promptly thereafter, the Board shall call a special meeting of the holders of Series A Preferred Stock for the purpose of filling such vacancy and such vacancy shall be filled at such special meeting. Such special meeting shall in any event be held within 45 days of the occurrence of such vacancy.

(v) At such time as the arrearage is fully cured, and all dividends accumulated and unpaid on any shares of Series A Preferred Stock outstanding are paid, and, in addition thereto, at least one regular dividend has been paid subsequent to curing such arrearage, the term of office of any Director elected pursuant to this Section 3(C), or his successor, shall automatically terminate, and the authorized number of Directors shall automatically decrease by two, the rights of the holders of the shares of the Series A Preferred Stock to vote as provided in this Section 3(C) shall cease, subject to renewal from time to time upon the same terms and conditions, and the holders of shares of the Series A Preferred Stock shall have only the limited voting rights elsewhere herein set forth.

(D) Except as set forth herein, or as otherwise provided by law, holders of Series A Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

Section 4. Certain Restrictions.

(A) Whenever quarterly dividends or other dividends or distributions payable on the Series A Preferred Stock as provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series A Preferred Stock outstanding shall have been paid in full, the Corporation shall not:

(i) declare or pay dividends, or make any other distributions, on any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock;

(ii) declare or pay dividends, or make any other distributions, on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Preferred Stock, except dividends paid ratably on the Series A Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such junior stock in exchange for shares of any stock of the Corporation ranking junior (either as to dividends or upon dissolution, liquidation or winding up) to the Series A Preferred Stock; or

(iv) redeem or purchase or otherwise acquire for consideration any shares of Series A Preferred Stock, or any shares of stock ranking on a parity with the Series A Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the Board) to all holders of such shares upon such terms as the Board, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(B) The Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under paragraph (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

Section 5. Reacquired Shares. Any shares of Series A Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their cancellation become

authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock subject to the conditions and restrictions on issuance set forth herein, in the Certificate of Incorporation, or in any other Certificate of Designations creating a series of Preferred Stock or any similar stock or as otherwise required by law.

Section 6. Liquidation, Dissolution or Winding Up.

(A) Upon any liquidation, dissolution or winding up of the Corporation, no distribution shall be made (1) to the holders of shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock unless, prior thereto, the holders of shares of Series A Preferred Stock shall have received \$1000 per share, plus an amount equal to accrued and unpaid dividends and distributions thereon, whether or not declared, to the date of such payment, provided that the holders of shares of Series A Preferred Stock shall be entitled to receive an aggregate amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1000 times the aggregate amount to be distributed per share to holders of shares of Common Stock, or (2) to the holders of shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Preferred Stock, except distributions made ratably on the Series A Preferred Stock and all such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up.

(B) Neither the consolidation, merger or other business combination of the Corporation with or into any other corporation nor the sale, lease, exchange or conveyance of all or any part of the property, assets or business of the Corporation shall be deemed to be a liquidation, dissolution or winding up of the Corporation for purposes of this Section 6.

(C) In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the aggregate amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under the proviso in clause (1) of paragraph (A) of this Section 6 shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event. In the event the Corporation shall at any time declare or pay any dividend on the Series A Preferred Stock payable in shares of Series A Preferred Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Series A Preferred Stock (by reclassification or otherwise than by payment of a dividend in shares of Series A Preferred Stock) into a greater or lesser number of shares of Series A Preferred Stock, then in each such case the aggregate amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under the proviso in clause (1) of paragraph (A) of this Section 6 shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Series A Preferred Stock that were

outstanding immediately prior to such event and the denominator of which is the number of shares of Series A Preferred Stock outstanding immediately after such event.

Section 7. Consolidation, Merger, etc. Notwithstanding anything to the contrary contained herein, in case the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each share of Series A Preferred Stock shall at the same time be similarly exchanged or changed into an amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is changed or exchanged. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount set forth in the preceding sentence with respect to the exchange or change of shares of Series A Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event. In the event the Corporation shall at any time declare or pay any dividend on the Series A Preferred Stock payable in shares of Series A Preferred Stock, or effect a subdivision, combination or consolidation of the outstanding shares of Series A Preferred Stock (by reclassification or otherwise than by payment of a dividend in shares of Series A Preferred Stock) into a greater or lesser number of shares of Series A Preferred Stock, then in each such case the amount set forth in the first sentence of this Section 7 with respect to the exchange or change of shares of Series A Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Series A Preferred Stock that were outstanding immediately prior to such event and the denominator of which is the number of shares of Series A Preferred Stock outstanding immediately after such event.

Section 8. No Redemption. The shares of Series A Preferred Stock shall not be redeemable.

Section 9. Rank. The Series A Preferred Stock shall rank, with respect to the payment of dividends and the distribution of assets, junior to all series of any other class of the Preferred Stock issued either before or after the issuance of the Series A Preferred Stock, unless the terms of any such series shall provide otherwise.

Section 10. Amendment. At such time as any shares of Series A Preferred Stock are outstanding, the Certificate of Incorporation, as amended, of the Corporation shall not be amended in any manner which would materially alter or change the powers, preferences or special rights of the Series A Preferred Stock so as to affect them adversely without the affirmative vote of the holders of at least two-thirds of the outstanding shares of Series A Preferred Stock, voting together as a single class.

Section 11. Fractional Shares. Series A Preferred Stock may be issued in fractions of a share which shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends, participate in distributions and have the benefit of all other rights of holders of Series A Preferred Stock.

IN WITNESS WHEREOF, this Certificate of Designations is executed on behalf of the Corporation by its Chief Executive Officer this \_\_\_\_\_ day of \_\_\_\_\_, 2006.

EMERGENT BIOSOLUTIONS, INC.

By: \_\_\_\_\_

Name:

Title:

**[Form of Rights Certificate]**

Certificate No. R-

\_\_\_\_\_ Rights

NOT EXERCISABLE AFTER NOVEMBER 14, 2016 OR EARLIER IF REDEEMED OR EXCHANGED BY THE COMPANY. THE RIGHTS ARE SUBJECT TO REDEMPTION AT \$0.001 PER RIGHT AND TO EXCHANGE ON THE TERMS SET FORTH IN THE RIGHTS AGREEMENT. UNDER CERTAIN CIRCUMSTANCES, RIGHTS BENEFICIALLY OWNED BY AN ACQUIRING PERSON (AS SUCH TERM IS DEFINED IN THE RIGHTS AGREEMENT) AND ANY SUBSEQUENT HOLDER OF SUCH RIGHTS MAY BECOME NULL AND VOID. [THE RIGHTS REPRESENTED BY THIS RIGHTS CERTIFICATE ARE OR WERE BENEFICIALLY OWNED BY A PERSON WHO WAS OR BECAME AN ACQUIRING PERSON OR AN AFFILIATE OR ASSOCIATE OF AN ACQUIRING PERSON (AS SUCH TERMS ARE DEFINED IN THE RIGHTS AGREEMENT)]. ACCORDINGLY, THIS RIGHTS CERTIFICATE AND THE RIGHTS REPRESENTED HEREBY MAY BECOME NULL AND VOID IN THE CIRCUMSTANCES SPECIFIED IN SECTION 7(e) OF SUCH AGREEMENT.]<sup>1</sup>

**EMERGENT BIOSOLUTIONS INC.**

**Rights Certificate**

This certifies that \_\_\_\_, or registered assigns, is the registered owner of the number of Rights set forth above, each of which entitles the owner thereof, subject to the terms, provisions and conditions of the Rights Agreement, dated November 14, 2006 (the "Rights Agreement"), between Emergent BioSolutions Inc., a Delaware corporation (the "Company"), and American Stock Transfer & Trust Company, as rights agent (the "Rights Agent"), to purchase from the Company after the Distribution Date (as such term is defined in the Rights Agreement) and at any time prior to 5:00 p.m. (New York time) on November 14, 2016 at the office of the Rights Agent designated for such purpose, or its successors as Rights Agent, one one-thousandth of a fully paid, non-assessable share of Series A Junior Participating Preferred Stock (the "Preferred Stock") of the Company, \$0.001 par value per share, at a purchase price of \$150 in cash per one one-thousandth of a share (the "Purchase Price"), upon presentation and surrender of this Rights Certificate with the Form of Election to Purchase and related Certificate duly executed. The number of Rights evidenced by this Rights Certificate (and the number of one one-thousandth of a share of Preferred Stock which may be purchased upon exercise hereof) set forth above, and the Purchase Price set forth above, are the number and Purchase Price as of the close of business on November 14, 2006, based on the Preferred Stock as constituted at such date. Capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed to such terms in the Rights Agreement.

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<sup>1</sup> The portion of the legend in brackets shall be inserted only if applicable and shall replace the preceding sentence.

Upon the occurrence of a Section 11(a)(ii) Event, if the Rights evidenced by this Rights Certificate are beneficially owned by (i) an Acquiring Person or an Affiliate or Associate of any such Acquiring Person (as such terms are defined in the Rights Agreement), (ii) a transferee of any such Acquiring Person, Associate or Affiliate who becomes a transferee after the Acquiring Person becomes an Acquiring Person, or (iii) under certain circumstances specified in the Rights Agreement, a transferee of a person who, concurrently with or after such transfer, became an Acquiring Person, or an Affiliate or Associate of an Acquiring Person, such Rights shall become null and void and no holder hereof shall have any right with respect to such Rights from and after the occurrence of such Section 11(a)(ii) Event.

As provided in the Rights Agreement, the Purchase Price and the number and kind of shares of Preferred Stock or other securities which may be purchased upon the exercise of the Rights evidenced by this Rights Certificate are subject to modification and adjustment upon the happening of certain events, including Section 11(a)(ii) Events.

This Rights Certificate is subject to all of the terms, provisions and conditions of the Rights Agreement, which terms, provisions and conditions are hereby incorporated herein by reference and made a part hereof and to which Rights Agreement reference is hereby made for a full description of the rights, limitations of rights, obligations, duties and immunities hereunder of the Rights Agent, the Company and the holders of the Rights Certificates, which limitations of rights include the temporary suspension of the exercisability of such Rights under the specific circumstances set forth in the Rights Agreement. Copies of the Rights Agreement are on file at the principal offices of the Company and are available upon written request to the Company.

This Rights Certificate, with or without other Rights Certificates, upon surrender at the office of the Rights Agent designated for such purpose, with the Form of Election and Certificate set forth on the reverse side duly executed, may be exchanged for another Rights Certificate or Rights Certificates of like tenor and date evidencing Rights entitling the holder to purchase a like aggregate number of one one-thousandths of a share of Preferred Stock as the Rights evidenced by the Rights Certificate or Rights Certificates surrendered shall have entitled such holder to purchase. If this Rights Certificate shall be exercised in part, the holder shall be entitled to receive upon surrender hereof another Rights Certificate or Rights Certificates for the number of whole Rights not exercised.

Subject to the provisions of the Rights Agreement, the Rights evidenced by this Certificate may be redeemed by the Company at its option at a redemption price of \$0.001 per Right at any time prior to the earlier of (i) the close of business on the tenth Business Day (or such later date as may be determined by the Board pursuant to clause (i) of the first sentence of Section 3(a) with respect to the Distribution Date) following the Stock Acquisition Date (or, if the Stock Acquisition Date shall have occurred prior to the Record Date, the close of business on the tenth Business Day following the Record Date) and (ii) the Final Expiration Date.

Subject to the provisions of the Rights Agreement, the Company may, at its option, at any time after a Section 11(a)(ii) Event, exchange all or part of the Rights evidenced by this Certificate for shares of the Company's Common Stock or for Preferred Stock (or shares of a class or series of

the Company's preferred stock having the same rights, privileges and preferences as the Preferred Stock).

No fractional shares of Preferred Stock will be issued upon the exercise of any Right or Rights evidenced hereby (other than fractions which are integral multiples of one one-thousandth of a share of Preferred Stock, which may, at the election of the Company, be evidenced by depositary receipts), but in lieu thereof a cash payment will be made, as provided in the Rights Agreement.

No holder of this Rights Certificate, as such, shall be entitled to vote or receive dividends or be deemed for any purpose the holder of shares of Preferred Stock or of any other securities of the Company which may at any time be issuable on the exercise hereof, nor shall anything contained in the Rights Agreement or herein be construed to confer upon the holder hereof, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, or to receive notice of meetings or other actions affecting stockholders (except as provided in the Rights Agreement), or to receive dividends or subscription rights, or otherwise, until the Right or Rights evidenced by this Rights Certificate shall have been exercised as provided in the Rights Agreement.

This Rights Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the Rights Agent.

WITNESS the facsimile signature of the proper officers of the Company and its corporate seal.

Dated as of \_\_\_\_\_

ATTEST:

EMERGENT BIOSOLUTIONS INC.

\_\_\_\_\_  
Secretary

By: \_\_\_\_\_  
Title: \_\_\_\_\_

COUNTERSIGNED:

AMERICAN STOCK TRANSFER & TRUST  
COMPANY, AS RIGHTS AGENT

By: \_\_\_\_\_

Authorized Signature

[Form of Reverse Side of Rights Certificate]

**FORM OF ASSIGNMENT**

(To be executed by the registered holder if such holder desires to transfer the Rights Certificate.)

FOR VALUE RECEIVED \_\_\_\_\_ hereby sells, assigns and transfers unto \_\_\_\_\_

(Please print name and address of transferee)

\_\_\_\_\_ this Rights Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint \_\_\_\_\_ Attorney, to transfer the within Rights Certificate on the books of the within-named Company, with full power of substitution.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

Signature Guaranteed:

Certificate

The undersigned hereby certifies that the Rights evidenced by this Rights Certificate are not beneficially owned by, or being assigned to, an Acquiring Person or an Affiliate or Associate thereof (as such terms are defined pursuant to the Rights Agreement).

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

Signature Guaranteed:

NOTICE

The signature to the foregoing Assignment and Certificate must correspond to the name as written upon the face of this Rights Certificate in every particular, without alteration or enlargement or any change whatsoever.

**FORM OF ELECTION TO PURCHASE**

(To be executed if holder desires to exercise  
Rights represented by the Rights Certificate.)

To: American Stock Transfer & Trust Company, as rights agent

The undersigned hereby irrevocably elects to exercise \_\_\_\_\_ Rights represented by this Rights Certificate to purchase the shares of Preferred Stock issuable upon the exercise of the Rights (or such other securities of the Company or of any other person which may be issuable upon the exercise of the Rights) and requests that certificates for such shares be issued in the name of and delivered to:

Please insert social security

or other identifying number \_\_\_\_\_

\_\_\_\_\_  
(Please print name and address)

\_\_\_\_\_  
If such number of Rights shall not be all the Rights evidenced by this Rights Certificate, a new Rights Certificate for the balance of such Rights shall be registered in the name of and delivered to:

Please insert social security

or other identifying number \_\_\_\_\_

\_\_\_\_\_  
(Please print name and address)

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

Signature Guaranteed:

**Certificate**

The undersigned hereby certifies by checking the appropriate boxes that:

(1) the Rights evidenced by this Rights Certificate [ ] are [ ] are not being exercised by or on behalf of a Person who is or was an Acquiring Person or an Affiliate or Associate thereof (as such terms are defined pursuant to the Rights Agreement);

(2) after due inquiry and to the best knowledge of the undersigned, the undersigned [ ] did [ ] did not acquire the Rights evidenced by this Rights Certificate from any Person who is, was or became an Acquiring Person or an Affiliate or Associate thereof.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

Signature Guaranteed:

**NOTICE**

The signature to the foregoing Election to Purchase and Certificate must correspond to the name as written upon the face of this Rights Certificate in every particular, without alteration or enlargement or any change whatsoever.

**SUMMARY OF RIGHTS TO  
PURCHASE PREFERRED STOCK**

On November 14, 2006, a committee of the Board of Directors of Emergent BioSolutions Inc. (the “Company” “we” or “us”), acting under authority previously delegated to the committee, declared a dividend of one right for each outstanding share of common stock to stockholders of record at the close of business on November 15, 2006. Each right, when exercisable, entitles the registered holder to purchase from us one one-thousandth of a share of Series A Junior Participating Preferred Stock, \$0.001 par value per share, at a purchase price of \$150 in cash, subject to adjustment. The description and terms of the rights are set forth in a Rights Agreement dated November 14, 2006 between the Company and American Stock Transfer & Trust Company, as Rights Agent.

The following description is a summary of the material terms of the rights agreement. It does not restate these terms in their entirety. We urge you to read the rights agreement because it, and not this description, defines its terms and provisions. We have filed a form of the rights agreement as an exhibit to our Registration Statement on Form S-1 filed in connection with our initial public offering.

**Rights.** Each share of common stock will have attached to it one right. Initially, the rights are not exercisable and are attached to all certificates representing outstanding shares of our common stock, and we will not distribute separate rights certificates. The rights will only be exercisable under limited circumstances specified in the rights agreement when there has been a distribution of the rights and the rights are no longer redeemable by us.

The rights will expire at the close of business on November 14, 2016, unless we redeem or exchange the rights earlier as described below.

**Prior to the rights distribution date.** Prior to the rights distribution date:

- the rights are evidenced by our common stock certificates and will be transferred with and only with such common stock certificates; and
- the surrender for transfer of any certificates of our common stock will also constitute the transfer of the rights associated with our common stock represented by such certificate.

**Rights distribution date.** The rights will separate from our common stock, and a rights distribution date will occur, upon the earlier of the following events:

- 10 business days following the later of (1) a public announcement that a person or group, other than an exempted person, has acquired, or obtained the right to acquire beneficial

ownership of 15% or more of the outstanding shares of our common stock or (2) the first date on which one of our executive officers has actual knowledge of such an event; and

- 10 business days following the start of a tender offer or exchange offer that would result in a person or group, other than an exempted person, beneficially owning 15% or more of the outstanding shares of our common stock.

The distribution date may be deferred by our board of directors and some inadvertent actions will not trigger the occurrence of the rights distribution date. In addition, a rights distribution date will not occur as a result of the ownership of our stock by the following exempted persons:

- Fuad El-Hibri, Nancy El-Hibri and any person or entity controlled by Fuad El-Hibri or Nancy El-Hibri;
- Microscience Investments Limited, unless and until such time as Microscience, together with its affiliates and associates, directly or indirectly, becomes the beneficial owner of any additional shares of common stock, except under certain specified circumstances, and disregarding any shares Microscience is or becomes the beneficial owner of solely as a result of the fact that it is a party to any of the stockholder agreements described in the Registration Statement on Form S-1 filed in connection with our initial public offering; and
- each other holder of our common stock immediately prior to this offering to the extent such person's beneficial ownership exceeds 15% solely as a result of the fact that the person is a party to any of the stockholder agreements described in the Registration Statement on Form S-1 filed in connection with our initial public offering.

As soon as practicable after the rights distribution date, separate rights certificates will be mailed to the holders of record of our common stock as of the close of business on the rights distribution date. From and after the rights distribution date, the separate rights certificates alone will represent the rights. All shares of our common stock issued prior to the rights distribution date will be issued with rights. Shares of our common stock issued after the rights distribution date in connection with specified employee benefit plans or upon conversion of specified securities will be issued with rights. Except as otherwise determined by our board of directors, no other shares of our common stock issued after the rights distribution date will be issued with rights.

**Flip-in event.** If a person or group, other than an exempted person, becomes the beneficial owner of 15% or more of the outstanding shares of our common stock, except as described below, each holder of a right will thereafter have the right to receive, upon exercise, a number of shares of our common stock, or, in some circumstances, cash, property or other securities of ours, which equals the exercise price of the right divided by one-half of the current market price of our common stock on the date the acquisition occurs. However, following the acquisition:

- rights will not be exercisable until the rights are no longer redeemable by us as set forth below; and

- all rights that are, or were, under the circumstances specified in the rights agreement, beneficially owned by any acquiring person will be null and void.

The event set forth in this paragraph is referred to as a flip-in event. A flip-in event would not occur if there is an offer for all of our outstanding shares of common stock that at least 75% of our board of directors determines is fair to our stockholders and in their best interests.

**Flip-over event.** If at any time after a person or group, other than an exempted person, has become the beneficial owner of 15% or more of the outstanding shares of our common stock:

- we are acquired in a merger or other business combination transaction in which we are not the surviving corporation;
- we are the surviving entity in a merger of other business combination transaction but our common stock is changed or exchanged for stock or securities of any other person or for cash or any other property; or
- more than 50% of our assets or earning power is sold or transferred,

then each holder of a right, except rights which previously have been voided as set forth above, shall thereafter have the right to receive, upon exercise, that number of shares of common stock of the acquiring company which equals the exercise price of the right divided by one-half of the current market price of that company's common stock at the date of the occurrence of the event.

The event set forth in this paragraph is referred to as a flip-over event. A flip-over event does not arise if the merger or other transaction follows an offer for all of our outstanding shares of common stock that at least 75% of our board of directors determines is fair to our stockholders and in their best interests.

**Exchange of rights.** At any time after a flip-in event, when no person owns a majority of our common stock, our board of directors may exchange the rights, other than rights owned by the acquiring person that have become void, in whole or in part, at an exchange ratio of one share of our common stock, or one one-thousandth of a share of Series A preferred stock, or of a share of a class or series of preferred stock having equivalent rights, preferences and privileges, per right.

**Adjustments.** The purchase price of the rights, and the number of securities purchasable, are subject to adjustment from time to time to prevent dilution. The number of rights associated with each share of common stock is also subject to adjustment in the event of a stock splits, subdivisions, consolidations or combinations of our common stock that occur prior to the rights distribution date.

**Series A junior participating preferred stock.** Series A preferred stock purchasable upon exercise of the rights will not be redeemable. Each share of series A preferred stock will be entitled to receive when, as and if declared by our board of directors, a minimum preferential quarterly dividend payment of \$10 per share or, if greater, an aggregate dividend of 1,000 times

the dividend declared per share of our common stock. In the event of liquidation, the holders of the series A preferred stock will be entitled to a minimum preferential liquidation payment of \$1,000 per share, plus accrued and unpaid dividends, and will be entitled to an aggregate payment of 1,000 times the payment made per share of our common stock. Each share of series A preferred stock will have 1,000 votes, voting together with our common stock. In the event of any merger, consolidation or other transaction in which our common stock is changed or exchanged, each share of series A preferred stock will be entitled to receive 1,000 times the amount received per share of our common stock. These rights are protected by customary antidilution provisions.

Because of the nature of the series A preferred stock's dividend, liquidation and voting rights, the value of one one-thousandth of a share of series A preferred stock purchasable upon exercise of each right should approximate the value of one share of common stock.

**Redemption of rights.** At any time until ten business days following the date of a public announcement that a person or group, other than an exempted person, has acquired or obtained the right to acquire beneficial ownership of 15% or more of the outstanding shares of our common stock, or such later date upon which one of our executive officers first has actual knowledge of such event or such later date as our board of directors may determine, we may redeem the rights in whole, but not in part, at a price of \$0.001 per right, payable in cash or stock. Immediately upon the redemption of the rights or such earlier time as established by our board of directors, the rights will terminate and the only right of the holders of rights will be to receive the redemption price.

**Status of rights holder and tax effects.** Until a right is exercised, the holder of the right, as such, will have no rights as a stockholder of ours, including no right to vote or to receive dividends. Although the distribution of the rights should not be taxable to stockholders or to us, stockholders may, depending upon the circumstances, recognize taxable income in the event that the rights become exercisable for our common stock, or other consideration, or for common stock of the acquiring company as described above.

**Board's authority to amend.** Our board of directors may amend any provision of the rights agreement, other than the redemption price, prior to the date on which the rights are no longer redeemable. Once the rights are no longer redeemable, our board's authority to amend the rights agreement is limited to correcting ambiguities or defective or inconsistent provisions in a manner that does not adversely affect the interest of holders of rights.

**Effects of the rights.** The rights are intended to protect our stockholders in the event of an unfair or coercive offer to acquire our company and to provide our board of directors with adequate time to evaluate unsolicited offers. The rights may have anti-takeover effects. The rights will cause substantial dilution to a person or group that attempts to acquire us without conditioning the offer on a substantial number of rights being acquired. The rights, however, should not affect any prospective offeror willing to make an offer at a fair price and otherwise in the best interests of us and our stockholders, as determined by our board of directors. The rights

should not interfere with any merger or other business combination approved by our board of directors.

WILMERHALE

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wilmerhale.com

December 8, 2006

Emergent BioSolutions Inc.  
300 Professional Drive, Suite 250  
Gaithersburg, Maryland 20879

Re: Employee Stock Option Plan, as amended and restated  
2006 Stock Incentive Plan  
Director Option Agreements

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to an aggregate of 7,806,319 shares of common stock, \$0.001 par value per share (the "Shares"), of Emergent BioSolutions Inc., a Delaware corporation (the "Company"), issuable under the Company's Employee Stock Option Plan, as amended and restated, and the Company's 2006 Stock Incentive Plan (collectively, the "Plans") and individual option agreements with the Company's directors (the "Director Option Agreements").

We have examined the Restated Certificate of Incorporation and Amended and Restated By-laws of the Company, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company as provided to us by the Company, the Registration Statement and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares in accordance with the Plans or the Director Option Agreements, as the case may be, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws.

We express no opinion herein as to the laws of any state or jurisdiction other than the state laws of The Commonwealth of Massachusetts, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

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Emergent BioSolutions Inc.  
December 8, 2006  
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Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Plans or the Director Option Agreements, as the case may be, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

WILMER CUTLER PICKERING  
HALE AND DORR LLP

By: /s/ David E. Redlick

David E. Redlick, a Partner

**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) of Emergent BioSolutions Inc. pertaining to the registration of 7,806,319 shares of common stock under the Employee Stock Option Plan, as amended and restated, the 2006 Stock Incentive Plan and individual director option agreements of our report dated May 23, 2006, except for Note 17, as to which the date is October 27, 2006, with respect to the consolidated financial statements included in the Prospectus filed on November 15, 2006 pursuant to Rule 424(b) under the Securities Act of 1933, as amended, relating to the Registration Statement on Form S-1, as amended (No. 333-136622), filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

McLean, Virginia  
December 4, 2006

**CONSENT OF INDEPENDENT AUDITORS**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the registration of 7,806,319 shares of common stock under the Employee Stock Option Plan, as amended and restated, the 2006 Stock Incentive Plan and individual director option agreements of Emergent BioSolutions Inc. of our report dated October 24, 2006 with respect to the financial statements of Emergent Product Development UK Limited included in the Prospectus filed on November 15, 2006 pursuant to Rule 424(b) under the Securities Act of 1933, as amended, relating to the Emergent BioSolutions Inc. Registration Statement on Form S-1, as amended (No. 333-136622), filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

London, England  
December 4, 2006