UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 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.)

400 Professional Drive, Suite 400 Gaithersburg, Maryland (Address of Principal Executive Offices)

20879 (Zip Code)

FOURTH AMENDED AND RESTATED EMERGENT BIOSOLUTIONS INC. 2006 STOCK INCENTIVE PLAN

(Full title of the plan)

Robert G. Kramer
Executive Vice President, Chief Financial Officer and Treasurer
Emergent BioSolutions Inc.
400 Professional Drive, Suite 400
Gaithersburg, Maryland 20879
(Name and address of agent for service)

(240) 621 2200

(240) 631-3200

(Telephone number, including area code, of agent for service)

Indicate by check mark whether the re	egistrant is a large accelerated filer, an	n accelerated filer, a non-accelerat	ed filer, or a smaller reporting company.
See the definition of "large accelerated filer," "	accelerated filer" and "smaller reporti	ing company" in Rule 12b-2 of the	e Exchange Act. (Check one):

	Large accelerated filer $oxtimes$	Accelerated filer \square
Do no	Non-accelerated filer □ t check if a smaller reporting company)	Smaller reporting company \square

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common stock, \$0.001 par value per share	3,750,000	\$ 29.81	\$ 111,787,500	\$ 12,980.80

- (1) Consists of 3,750,000 additional shares of common stock issuable under the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan. In addition, 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) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) under the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the company's common stock on the New York Stock Exchange on February 23, 2017.

INCORPORATION BY REFERENCE

This registration statement on Form S-8 is filed to register the offer and sale of an additional 3,750,000 shares of the company's common stock, \$0.001 par value per share, issuable under the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan (the "Stock Incentive Plan"). In accordance with General Instruction E to Form S-8, the contents of the following registration statements previously filed by the company with respect to securities offered pursuant to prior versions of the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan are hereby incorporated by reference: Form S-8, Registration No. 333-184699, filed on November 1, 2012, Form S-8, Registration No. 333-161154, filed on August 7, 2009 and Form S-8, Registration No. 333-139190, filed on December 8, 2006.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.*

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

* The information called for in Part I of Form S-8 will be included in a prospectus to be distributed to participants in the plan covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act").

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.†

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the issuance of the shares of common stock to be registered in connection with this registration statement will be passed upon by Eric Burt, Vice President, Associate General Counsel and Assistant Corporate Secretary of the company. Mr. Burt is compensated by the Company as an employee and holds awards granted under the company's Stock Incentive Plan.

- Item 6. Indemnification of Directors and 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.†

† In accordance with General Instruction E to Form S-8, the contents of the following registration statements previously filed by the company with respect to securities offered pursuant to prior versions of the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan are hereby incorporated by reference: Form S-8, Registration No. 333-196232, filed on May 23, 2014, Form S-8, Registration No. 333-184699, filed on November 1, 2012, Form S-8, Registration No. 333-161154, filed on August 7, 2009 and Form S-8, Registration No. 333-139190, filed on December 8, 2006.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the company 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, Maryland, on this 27th day of February 2017.

EMERGENT BIOSOLUTIONS INC.

By: /s/ Robert G. Kramer

Robert G. Kramer

Executive Vice President, Chief Financial Officer and Treasurer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Emergent BioSolutions Inc., hereby severally constitute and appoint Daniel J. Abdun-Nabi, President and Chief Executive Officer and Robert G. Kramer, Executive Vice President, Chief Financial Officer and Treasurer, and each of them singly, and any successor or successors to such offices held by each of them, our true and lawful attorneys with full power to any of them, and to 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 name 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, as amended, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ Daniel J. Abdun-Nabi Daniel J. Abdun-Nabi	President, Chief Executive Officer and Director (Principal Executive Officer)	February 27, 2017
/s/ Robert G. Kramer Robert G. Kramer	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	February 27, 2017
<u>/s/ Fuad El-Hibri</u> Fuad El-Hibri	Executive Chairman of the Board	February 27, 2017
/s/ Dr. Sue Bailey Dr. Sue Bailey	Director	February 27, 2017
/s/ Zsolt Harsanyi, Ph.D. Zsolt Harsanyi, Ph.D.	Director	February 27, 2017
/s/ Jerome Hauer, Ph.D. Jerome Hauer, Ph.D.	Director	February 27, 2017
/s/ General George A. Joulwan General George A. Joulwan	Director	February 27, 2017
/s/ Ronald B. Richard Ronald B. Richard	Director	February 27, 2017
/s/ Louis W. Sullivan, M.D. Louis W. Sullivan, M.D.	Director	February 27, 2017
/s/ Kathryn C. Zoon, Ph.D. Kathryn C. Zoon, Ph.D.	Director	February 27, 2017

EXHIBIT INDEX

Exhibit Number	Description
4.1	Third Restated Certificate of Incorporation of the company (incorporated by reference to Exhibit 4 to the company's Quarterly Report on Form 10-Q filed on August 5, 2016).
4.2	Amended and Restated By-laws of the company (incorporated by reference to Exhibit 3 to the company's Current Report on Form 8-K filed on August 16, 2012).
4.3	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the company's Registration Statement on Form S-1 (Registration No. 333-136622) filed on October 20, 2006).
5*	Opinion of Eric Burt, Vice President, Associate General Counsel and Assistant Secretary of the company, regarding the validity of the shares of Common Stock being offered hereby.
23.1*	Consent of Ernst & Young LLP.
23.2*	Consent of Eric Burt, Vice President, Associate General Counsel and Assistant Secretary (included in Exhibit 5 filed herewith).
24*	Power of Attorney (included on the signature page to this registration statement).
99	Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 5, 2016).

^{*} Filed herewith.

Emergent BioSolutions Inc. 400 Professional Drive, Suite 400 Gaithersburg, MD 20879

February 27, 2017

Ladies and Gentlemen:

I am Vice President, Associate General Counsel and Assistant Corporate Secretary of Emergent BioSolutions Inc., a Delaware corporation (the "Company"). This opinion is being rendered solely in connection with the Company's Registration Statement on Form S-8 (the "Registration Statement") being filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of 3,750,000 shares of the Company's common stock, \$0.001 par value per share (the "Shares"), which may be issued pursuant to the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan (the "Stock Incentive Plan").

This opinion is being delivered pursuant to the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

In rendering the opinion set forth herein, I or attorneys under my supervision (with whom I have consulted) have examined the Stock Incentive Plan and the Registration Statement (including the exhibits thereto) and originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company and such agreements, certificates and receipts of public officials, certificates of officers or other representatives of the Company and others, and such other documents as I or attorneys under my supervision (with whom I have consulted) have deemed necessary or appropriate as a basis for the opinion set forth below.

In my examination, I or attorneys under my supervision (with whom I have consulted) have assumed the legal capacity of all natural persons, 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 facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies. As to any facts material to this opinion that I or attorneys under my supervision (with whom I have consulted) did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.

Based upon and subject to the foregoing, I am of the opinion that the issuance of the Shares reserved for issuance under the Stock Incentive Plan have been duly authorized and that the Shares, when issued and delivered in accordance with the terms of the Stock Incentive Plan, will be validly issued, fully paid and nonassessable.

I hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement and to the reference to me under the caption "Interests of Named Experts and Counsel" in the Registration Statement. By giving this consent, I do not admit that I am an expert with respect to any part of the Registration Statement, including this exhibit, within the meaning of the term "expert" as used in the Securities Act or the rules and regulations of the Commission issued thereunder.

Sincerely,

/s/ E_{RIC} B_{URT}

Eric Burt

Vice President, Associate General Counsel and Assistant Corporate Secretary

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8), dated February 27, 2017, pertaining to the Fourth Amended and Restated Emergent BioSolutions Inc. 2006 Stock Incentive Plan of Emergent BioSolutions Inc. of our reports dated February 27, 2017, with respect to the consolidated financial statements and schedule of Emergent BioSolutions Inc. and the effectiveness of internal control over financial reporting of Emergent BioSolutions Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2016, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

McLean, Virginia February 27, 2017