Registration No. 333-

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CUE BIOPHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware 47-3324577

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

675 W. Kendall St. Cambridge, MA (Address of principal executive offices)

02142

(Zip Code)

Cue Biopharma, Inc. 2016 Omnibus Incentive Plan Cue Biopharma, Inc. 2016 Non-Employee Equity Incentive Plan

(Full title of the plan)

Daniel R. Passeri **Chief Executive Officer** Cue Biopharma, Inc. 675 W. Kendall St. Cambridge, MA 02142

(Name and address of agent for service)

(617) 949-2680

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer □ Non-accelerated filer ⊠	Accelerated filer □
(Do not check if a smaller reporting company)	Smaller reporting company □ Emerging growth company ⊠
If an emerging growth company, indicate by check mark if the registrant has electronic revised financial accounting standards pursuant to Section 7(a)(2)(B) of the Security	

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	Amount of Registration Fee
Common Stock, \$0.001 par value per share, to be issued under the Registrant's 2016 Omnibus Incentive Plan	4,688,771	\$15.16	\$71,081,768.00	\$8,849.68
Common Stock, \$0.001 par value per share, to be issued under the Registrant's 2016 Non-Employee Equity Incentive Plan	500,000	\$15.16	\$7,580,000.00	\$943.71

In addition, pursuant to Rule 416(a), this Registration Statement also covers such indeterminate number of additional shares of Common Stock as is necessary to eliminate any dilutive effect of any future stock split, stock dividend or similar transaction.

Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and 457(h) of the Securities Act of 1933, as amended, and based on the average of the high and low prices for Common Stock on March 26, 2018, as reported on The Nasdaq Capital Market.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The information required by this Item 1 is omitted from this registration statement in accordance with Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act"), and the Note to Part I of Form S-8.

Item 2. Registrant Information and Employee Plan Annual Information.

The information required by this Item 2 is omitted from this registration statement in accordance with Rule 428(b)(1) of the Securities Act and the Note to Part I of Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents have been filed by Cue Biopharma, Inc. (the "Registrant") with the Securities and Exchange Commission (the "Commission") and are incorporated herein by reference:

- · Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the Commission on March 29, 2018;
- · Current Report on Form 8-K filed with the Commission on January 26, 2018; and
- The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form S-1, originally filed with the Commission on September 21, 2017, as amended (No. 333-220550), which description is incorporated by reference into the Registrant's Registration Statement on Form 8-A, originally filed with the Commission pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") on December 13, 2017 (No. 001-38327), including any further amendment or report filed hereafter for the purpose of updating such description.

All reports and other documents filed by the Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date hereof, and 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 herein and to be part hereof from the date of filing of such reports and documents. The Registrant is not incorporating by reference any reports or documents or portions thereof that are not considered to be "filed" with the Commission.

Any statement contained herein or in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded for 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 herein by reference modifies or supersedes such earlier 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.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The following summary is qualified in its entirety by reference to the complete text of any statutes referred to below and the Registrant's Amended and Restated Certificate of Incorporation.

Section 145 of the General Corporation Law of the State of Delaware (the "DGCL") permits a Delaware corporation to indemnify any person who was or is a party or is 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 the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person 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 the person's conduct was unlawful.

In the case of an action by or in the right of the corporation, Section 145 of the DGCL permits a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of 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 the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses that the Court of Chancery or such other court shall deem proper.

Section 145 of the DGCL also permits a Delaware corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under Section 145 of the DGCL.

Article VI of the Registrant's Amended and Restated Certificate of Incorporation states that the Registrant's directors shall not be personally liable to the Registrant or to its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. Under Section 102(b)(7) of the DGCL, the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty can be limited or eliminated except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the DGCL (relating to unlawful payment of dividend or unlawful stock purchase or redemption); or (iv) for any transaction from which the director derived an improper personal benefit.

Article V of the Registrant's Amended and Restated Certificate of Incorporation provides that the Registrant shall indemnify (and advance expenses to) its officers and directors to the full extent permitted by the DGCL.

All of the Registrant's directors and officers are covered by insurance policies maintained by the Registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act.

The Registrant has entered into indemnification agreements with each of its directors and executive officers that require the Registrant to indemnify such persons against various actions including, but not limited to, third-party actions where such director or executive officer, by reason of his or her corporate status, is a party or is threatened to be made a party to an action, or by reason of anything done or not done by such director in any such capacity. The Registrant intends to indemnify directors and executive officers against all costs, judgments, penalties, fines, liabilities, amounts paid in settlement by or on behalf of such directors or executive officers and for any expenses actually and reasonably incurred by such directors or executive officers in connection with such action, if such directors or executive officers acted in good faith and in a manner they reasonably believed to be in or not opposed to the Registrant's best interests, and with respect to any criminal proceeding, had no reasonable cause to believe their conduct was unlawful. The Registrant also intends to advance to the Registrant's directors and executive officers expenses (including attorney's fees) incurred by such directors and executive officers in advance of the final disposition of any action after the Registrant's receipt of a statement or statements from directors or executive officers requesting such payment or payments from time to time, provided that such statement or statements are preceded or accompanied by an undertaking, by or on behalf of such directors or executive officers, to repay such amount if it shall ultimately be determined that they are not entitled to be indemnified against such expenses by the Registrant.

The indemnification agreements set forth certain procedures that will apply in the event of a claim for indemnification or advancement of expenses, including, among others, provisions about providing notice to the Registrant of any action in connection with which a director or executive officer seeks indemnification or advancement of expenses from the Registrant and provisions concerning the determination of entitlement to indemnification or advancement expenses.

Item 7. Exemption from Registration Claimed.

Not applicable.

Exhibit <u>Number</u>	<u>Description</u>
<u>4.1</u>	Amended and Restated Certificate of Incorporation of Cue Biopharma, Inc. (incorporated by reference to Exhibit 3.4 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on December 5, 2017)
<u>4.2</u>	Amended and Restated Bylaws of Cue Biopharma, Inc. (incorporated by reference to Exhibit 3.5 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on December 5, 2017)
<u>4.3</u>	Cue Biopharma, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on September 21, 2017)
4.4	Form of Stock Option Award under Cue Biopharma, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on September 21, 2017)
<u>4.5</u>	<u>Cue Biopharma, Inc. 2016 Non-Employee Equity Incentive Plan (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on September 21, 2017)</u>
<u>4.6</u>	Form of Stock Option Award under Cue Biopharma, Inc. 2016 Non-Employee Equity Incentive Plan (incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-220550) filed on September 21, 2017)
<u>5.1</u>	Opinion of K&L Gates LLP
<u>23.1</u>	Consent of Gumbiner Savett Inc., Independent Registered Public Accounting Firm
<u>23.2</u>	Consent of K&L Gates LLP (contained in Exhibit 5.1)
<u>24.1</u>	Power of Attorney (included on the signature page of this Registration Statement)
Item 9.	Undertakings
(a)	The undersigned Registrant hereby undertakes:

Item 8.

Exhibits.

- (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;
 - to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(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 (a)(1)(i) and (a)(1)(ii) above 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 into this 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.
- (b) 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 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to 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.
- (c) 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 Commission such indemnification is against public policy as expressed in the 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, 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 Cambridge, Commonwealth of Massachusetts, on March 29, 2018.

Cue Biopharma, Inc.

By: /s/ Daniel R. Passeri

Daniel R. Passeri Chief Executive Officer

Title

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Daniel R. Passeri and Gary Schuman, and each of them, his true and lawful attorney-in-fact and agent, each with full power of substitution and resubstitution, severally, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney may be executed in counterparts.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons in the capacities indicated, in each case on March 29, 2018:

Signature	Title
/s/ Daniel R. Passeri	Chief Executive Officer and Director
Daniel R. Passeri	(Principal Executive Officer)
/s/ Gary Schuman	Interim Chief Financial Officer
Gary Schuman	(Principal Financial and Accounting Officer)
/s/ Anthony DiGiandomenico	Director
Anthony DiGiandomenico	
/s/ Cameron Gray	Director
Cameron Gray	
/s/ Peter A. Kiener	Director
Peter A. Kiener	
/s/ Steven McKnight	Director
Steven McKnight	
/s/ Christopher Marlett	Director
Christopher Marlett	
/s/ Barry Simon	Director
Barry Simon	
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March 29, 2018

Cue Biopharma, Inc. 675 W. Kendall St. Cambridge, MA 02142

Ladies and Gentlemen:

We have acted as special counsel to you in connection with the Registration Statement on Form S-8 (the "Registration Statement") filed on the date hereof with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of (i) 4,688,771 shares (the "Omnibus Plan Shares") of common stock, par value \$0.001 per share ("Common Stock"), of Cue Biopharma, Inc., a Delaware corporation (the "Company"), issuable pursuant to the Cue Biopharma, Inc. 2016 Omnibus Incentive Plan (the "Omnibus Plan") and (ii) 500,000 shares (the "Non-Employee Plan Shares" and, together with the Omnibus Plan Shares, the "Shares") of Common Stock of the Company issuable pursuant to the Cue Biopharma, Inc. 2016 Non-Employee Equity Incentive Plan (the "Non-Employee Plan" and, together with the Omnibus Plan, the "Plans"). Capitalized terms used but not defined herein have the meanings ascribed to such terms in the Plans.

You have requested our opinion as to the matters set forth below in connection with the Registration Statement. For purposes of rendering that opinion, we have examined: (a) the Registration Statement, (b) the Company's Amended and Restated Certificate of Incorporation, as amended through the date hereof, (c) the Company's Amended and Restated Bylaws, as amended through the date hereof, (d) the Omnibus Plan, (e) the Non-Employee Plan, (f) resolutions adopted by the Board of Directors of the Company (the "Board of Directors") relating to the Registration Statement and the Plans, and (g) a certificate of an officer of the Company, dated as of the date hereof. Other than our review of the documents listed in (a) through (g) above, we have not reviewed any other documents or made any independent investigation for the purpose of rendering this opinion.

For the purposes of this opinion letter, we have assumed that: (a) each document submitted to us is accurate and complete; (b) each such document that is an original is authentic; (c) each such document that is a copy conforms to an authentic original; (d) all signatures on each such document are genuine; and (e) the Company is and shall remain at all times a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. We have further assumed the legal capacity of natural persons, and we have assumed that each party to the documents we have examined or relied on has the legal capacity or authority and has satisfied all legal requirements that are applicable to that party to the extent necessary to make such documents enforceable against that party. We have not verified any of those assumptions.

In rendering our opinion below, we also have assumed that: (a) the Company will have sufficient authorized and unissued shares of Common Stock at the time of each issuance of any Shares under the Plans; (b) the issuance of each Share will be duly noted in the Company's stock ledger upon its issuance; (c) the Company will receive consideration for each Share at least equal to the par value of such share of Common Stock and in the amount required by the Plans (or the Award Agreement issued thereunder); and (d) prior to the issuance of any Shares under the Plans, the Company's Board of Directors (or a duly authorized committee thereof) will duly authorize each Award granted under the Omnibus Plan and Non-Employee Plan, as applicable, pursuant to an Award Agreement and in accordance with the Delaware General Corporation Law (the "DGCL") and the Plan.

K&L GATES LLP
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Cue Biopharma, Inc. March 29, 2018 Page 2

Our opinion set forth below is limited to the DGCL and reported decisions interpreting the DGCL.

Based upon and subject to the foregoing, it is our opinion that the Shares (a) are duly authorized for issuance by the Company pursuant to, and on the terms set forth in, the Plans and, (b) when, and if, issued pursuant to the terms of the Plans and the applicable Award Agreement, will be validly issued, fully paid, and nonassessable.

This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws.

We hereby consent to the filing of this opinion letter with the Commission as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not thereby 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 thereunder.

Yours truly,

/s/ K&L Gates LLP

K&L Gates LLP



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors Cue Biopharma, Inc.

We hereby consent to the use in this Registration Statement on Form S-8 of our report dated March 29, 2018, relating to the balance sheets of Cue Biopharma, Inc. (the "Company") as of December 31, 2017 and 2016, and the related statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, which is incorporated by reference in the Registration Statement.

/s/ Gumbiner Savett Inc. March 29, 2018 Santa Monica, California