

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

**FORM S-8
REGISTRATION STATEMENT**
UNDER
THE SECURITIES ACT OF 1933

PHASEBIO PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

03-0375697

(I.R.S. Employer Identification Number)

**1 Great Valley Parkway, Suite 30
Malvern, Pennsylvania 19355
(610) 981-6500**

(Address of principal executive offices, including zip code)

**PhaseBio Pharmaceuticals, Inc. 2018 Equity Incentive Plan
PhaseBio Pharmaceuticals, Inc. 2018 Employee Stock Purchase Plan**
(Full titles of the plans)

**Jonathan P. Mow
Chief Executive Officer
PhaseBio Pharmaceuticals, Inc.
Regus Del Mar
12707 High Bluff Drive
Suite 200
San Diego, CA 92130
(610) 981-6500**

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

Copies to:

**Christian E. Plaza
Darren K. DeStefano
Madison A. Jones
11951 Freedom Drive
Reston, Virginia 20190
(703) 456-8000**

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>		
Emerging growth company	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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, par value \$0.001 per share				
- 2018 Equity Incentive Plan	734,948 ⁽²⁾	\$6.47 ⁽⁴⁾	\$4,755,114	\$576.32
- 2018 Employee Stock Purchase Plan	244,983 ⁽³⁾	\$5.50 ⁽⁵⁾	\$1,347,407	\$163.31
Total	979,931		\$6,102,520	\$739.63

(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "**Securities Act**"), this Registration Statement shall also cover any additional shares of Registrant's common stock that become issuable under the plans set forth herein by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected that results in an increase to the number of outstanding shares of Registrant's common stock.

(2) Represents an automatic annual increase equal to 3% of the total number of shares of the Registrant's capital stock outstanding on December 31st of the preceding calendar year to the aggregate number of shares of the Registrant's common stock reserved for issuance under, and which annual increase is provided by, the Registrant's 2018 Equity Incentive Plan (as amended, the "**2018 Plan**").

(3) Represents an automatic increase equal to 1% of the total number of shares of the Registrant's capital stock outstanding on December 31st of the preceding calendar year to the aggregate number of shares of the Registrant's common stock reserved for issuance under, and which annual increase is provided by, the Registrant's 2018 Employee Stock Purchase Plan (the "**2018 ESPP**").

(4) Estimated in accordance with Rule 457(c) and (h) solely for purposes of calculating the registration fee on the basis of \$6.47, the average of the high and low prices of the Registrant's common stock as reported on the Nasdaq Global Select Market on March 22, 2019.

(5) Estimated in accordance with Rule 457(c) and (h) solely for the purpose of calculating the registration fee on the basis of \$5.50, the average of the high and low prices of the Registrant's common stock as reported on the Nasdaq Global Select Market on March 22, 2019, multiplied by 85%, which is the percentage of the price per share applicable to purchases under the 2018 ESPP.

**REGISTRATION OF ADDITIONAL SHARES
PURSUANT TO GENERAL INSTRUCTION E**

Pursuant to General Instruction E of Form S-8, PhaseBio Pharmaceuticals, Inc. (the “**Registrant**”) is filing this Registration Statement with the Securities and Exchange Commission (the “**Commission**”) to register (1) 734,948 additional shares of its common stock under the 2018 Plan, pursuant to the provisions of the 2018 Plan providing for an automatic increase in the number of shares common stock reserved and available for issuance under the 2018 Plan on January 1, 2019 and (2) 244,983 additional shares of its common stock under the 2018 ESPP, pursuant to the provisions of 2018 ESPP providing for an automatic increase in the number of shares of common stock reserved and available for issuance under the 2018 ESPP on January 1, 2019. In accordance with the instructional note to Part I of Form S-8 as promulgated by the Commission, the information specified by Part I of the Form S-8 has been omitted from this Registration Statement.

PART II

Item 3 Incorporation of Certain Documents by Reference

The following documents filed by the Registrant with the Commission are incorporated by reference into this Registration Statement:

- (a) The contents of the Registrant’s Registration Statement on Form S-8 (File No. 333-227935), filed with the Commission on October 22, 2018;
- (b) The Registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the Commission on March 26, 2019;
- (c) All other reports of the Registrant filed pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”) since the end of the fiscal year covered by the Registrant’s Annual Report referred to in (1) above (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items).
- (d) The description of the Registrant’s common stock, which is contained in a registration statement on Form 8-A filed on October 9, 2018 (File No. 001-38697) under the Exchange Act, including any amendment or report filed for the purpose of updating such description.
- (e) All other reports and documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such reports and 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 purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 8 Exhibits

Exhibit Number	Description	Incorporated by Reference		
		Schedule Form	File Number	Exhibit Filing Date
4.1	Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect	8-K	001-38697	3.1 October 22, 2018
4.2	Amended and Restated Bylaws of the Registrant, as currently in effect	S-1/A	333-227474	3.4 October 5, 2018
5.1*	Opinion of Cooley LLP			
23.1*	Consent of KPMG LLP, independent registered public accounting firm			
23.2*	Consent of Cooley LLP (included in Exhibit 5.1)			
24.1*	Power of Attorney (included on the signature page of this Form S-8)			
99.1	2018 Equity Incentive Plan and Forms of Stock Option Grant Notice and Agreement and Restricted Stock Unit Grant Notice and Agreement thereunder	S-8	333-227935	10.2 October 22, 2018
99.2	2018 Employee Stock Purchase Plan	S-8	333-227935	10.3 October 22, 2018

* Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Malvern, Pennsylvania, on March 26, 2019.

PHASEBIO PHARMACEUTICALS, INC.

By: /s/ John Sharp

John Sharp

Chief Financial Officer

(On behalf of the registrant and in his capacity as

Principal Financial Officer and Principal Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jonathan P. Mow and John Sharp, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in their name, place or stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, 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 connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, 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/ Jonathan P. Mow</u> Jonathan P. Mow	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 26, 2019
<u>/s/ John Sharp</u> John Sharp	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	March 26, 2019
<u>/s/ Clay B. Thorp</u> Clay B. Thorp	Chairman of the Board of Directors	March 26, 2019
<u>/s/ Edmund P. Harrigan, M.D.</u> Edmund P. Harrigan, M.D.	Director	March 26, 2019
<u>/s/ Nancy J. Hutson, Ph.D.</u> Nancy J. Hutson, Ph.D.	Director	March 26, 2019
<u>/s/ Peter Justin Klein, M.D., J.D.</u> Peter Justin Klein, M.D., J.D.	Director	March 26, 2019
<u>/s/ Caroline Loewy</u> Caroline Loewy	Director	March 26, 2019
<u>/s/ Bibhash Mukhopadhyay, Ph.D.</u> Bibhash Mukhopadhyay, Ph.D.	Director	March 26, 2019
<u>/s/ Linda Tufts</u> Linda Tufts	Director	March 26, 2019
<u>/s/ Richard A. van den Broek</u> Richard A. van den Broek	Director	March 26, 2019



Darren K. DeStefano
+1 703 456 8034
ddestefano@cooley.com

March 26, 2019

PhaseBio Pharmaceuticals, Inc.
1 Great Valley Parkway, Suite 30
Malvern, Pennsylvania 19355

Re: Registration on Form S-8

Ladies and Gentlemen:

We have acted as counsel to PhaseBio Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and you have requested our opinion in connection with the filing of a registration statement on Form S-8 (the "**Registration Statement**") with the U.S. Securities and Exchange Commission, covering the offering of up to (a) 734,948 shares of the Company's common stock, par value \$0.001 per share (the "**2018 EIP Shares**") issuable pursuant to the Company's 2018 Equity Incentive Plan and (b) 244,983 shares of common stock, par value \$0.001 per share (together the 2018 EIP Shares, the "**Shares**") issuable pursuant to the Company's 2018 Employee Stock Purchase Plan (together with the Company's 2018 Equity Incentive Plan, as amended, the "**Plans**").

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectuses included therein, the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, each as currently in effect, the Plans and the originals or copies certified to our satisfaction of such other records, documents, certificates, memoranda, and other instruments as we deem necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plans, the Registration Statement and related prospectuses, will be validly issued, fully paid and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5640
T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM



PhaseBio Pharmaceuticals, Inc.
March 26, 2019
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We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Darren DeStefano
Darren DeStefano

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5640
T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM

Consent of Independent Registered Public Accounting Firm

The Board of Directors
PhaseBio Pharmaceuticals, Inc.:

We consent to the use of our report incorporated herein by reference.

/s/ KPMG LLP

Philadelphia, Pennsylvania
March 26, 2019