UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Pulse Biosciences, Inc.

(Exact name of Registrant as specified in its charter)

Delaware 46-5696597

(State or other jurisdiction of incorporation or organization)

3957 Point Eden Way Hayward, California 94545

(Address of principal executive offices, including zip code)

2017 Equity Incentive Plan

(Full title of the plan)

Darrin R. Uecker President and Chief Executive Officer Pulse Biosciences, Inc. 3957 Point Eden Way Hayward, California 94545 (510) 906-4600

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

Copies to:

Andrew D. Hoffman Wilson Sonsini Goodrich & Rosati, P.C. 650 Page Mill Road Palo Alto, California 94304 (650) 493-9300

Brian Dow Senior Vice President and Chief Financial Officer Pulse Biosciences, Inc. 3957 Point Eden Way Hayward, California 94545 (510) 906-4600

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

Indicate by check mar	k 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 "er	merging growth company"
in Rule 12b-2 of the Exchar	nge Act.	
I argo accolorated filer	П	Accolorated filer

Large accelerated filer	Accelerated filer	Δ
Non-accelerated filer	Smaller reporting company	X
	Emerging growth company	\times

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 7(a)(2)(B) of the Securities 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, \$0.001 par value per share, reserved				
for issuance pursuant to the 2017 Equity Incentive Plan	823,716 (2)	\$12.00(3)	\$9,884,592.00	\$1,198.02
Total:	823,716		\$9,884,592.00	\$1,198.02

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of common stock of the Registrant that become issuable under the 2017 Equity Incentive Plan (the "2017 Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock ("Common Stock").
- (2) Represents an automatic annual increase on January 1, 2019 to the number of shares of the Common Stock reserved for issuance under the 2017 Plan.
- (3) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) and Rule 457(h) under the Securities Act of 1933, as amended, on the basis of \$12.00 per share, which represents the average of the high and low prices of the Common Stock, as reported on the NASDAQ Capital Market on January 16, 2019.

PART I

INFORMATION REQUIRED IN THE PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (the "Registration Statement") in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants of the equity benefit plan and to option award recipients pursuant to stock option agreements covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Pulse Biosciences, Inc. (the "Registrant") hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the "Commission"):

- (1) The Registrant's Annual Report on Form 10-K for its fiscal year ended December 31, 2017, filed with the Commission on March 16, 2018;
- (2) All other reports filed by the Registrant with the Commission pursuant to Sections 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Registrant's Annual Report referred to in (1) above; and
- (3) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A (File No. 001-37744) filed with the Commission on April 15, 2016 pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act 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 in this Registration Statement and to be a part hereof from the respective dates of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

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 which also is or 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 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Kenneth A. Clark, a director of the Company since November 2017, is a member of the law firm of Wilson Sonsini Goodrich & Rosati, P.C., which also serves as the outside corporate counsel to the Company.

Item 6. Indemnification of Directors and Officers.

Under Section 145 of the Delaware General Corporation Law, Registrant has broad powers to indemnify its directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act"). Registrant's Bylaws (the "Bylaws") provide that Registrant shall indemnify its directors and officers if such officer or director acted (i) in good faith, (ii) in a manner reasonably believed to be in or not opposed to the best interests of Registrant, and (iii) with respect to any criminal action or proceeding, had no reasonable cause to believe such conduct was unlawful. Registrant believes that indemnification under its Bylaws covers at least negligence and gross negligence, and requires Registrant to advance litigation expenses in the case of stockholder derivative actions or other actions, against an undertaking by the directors and officers to repay such advances if it is ultimately determined that the director is not entitled to indemnification. The Bylaws further provide that rights conferred under such Bylaws shall not be deemed to be exclusive of any other right such persons may have or acquire under any agreement, vote of stockholders or disinterested directors, or otherwise.

In addition, Registrant's Certificate of Incorporation (the "Certificate of Incorporation") provides that, pursuant to Delaware law, none of its directors shall be liable for monetary damages for breach of his or her fiduciary duty of care to Registrant and its stockholders to the fullest extent permitted by the Delaware General Corporation Law as it presently exists or may hereafter be amended from time to time. This provision in the Certificate of Incorporation does not eliminate the duty of care, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of lovalty to Registrant for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are in willful or negligent violation of applicable Delaware law. The provision also does not affect a director's responsibilities under any other law, such as the federal securities laws or state or federal environmental laws. The Certificate of Incorporation further provides that Registrant shall indemnify its directors and officers to the fullest extent permitted by law and requires Registrant to advance litigation expenses in the case of stockholder derivative actions or other actions, against an undertaking by the director to repay such advances if it is ultimately determined that the director is not entitled to indemnification. The Certificate of Incorporation also provides that rights conferred under such Certificate of Incorporation shall not be deemed to be exclusive of any other right such persons may have or acquire under any statute, the Certificate of Incorporation, the Bylaws, agreement, vote of stockholders or disinterested directors, or otherwise.

Registrant has obtained liability insurance policies for the officers and directors that, subject to certain limitations, terms and conditions, will insure them against losses arising from wrongful acts (as defined by the policy) in their capacity as directors or officers.

In addition, Registrant has entered into agreements to indemnify its directors and certain of its officers in addition to the indemnification provided for in the Certificate of Incorporation and Bylaws. These agreements, among other things, indemnify Registrant's directors and certain of its officers for certain

expenses (including attorney's fees), judgments, fines and settlement amounts incurred by such person in any action or proceeding, including any action by or in the right of Registrant, on account of services as a director or officer of Registrant or as a director or officer of any subsidiary of Registrant, or as a director or officer of any other company or enterprise that the person provides services to at the request of Registrant.

See also the undertakings set out in response to Item 9 herein.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed as part of this registration statement.

		Incorporated by Reference			
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
4.1	Form of Common Stock certificate of the Registrant	8-K12B	001-37744	4.1	06/18/18
4.2	2017 Equity Incentive Plan and forms of agreement thereunder.	8-K	001-37744	10.1	05/19/17
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.				
23.1	Consent of Gumbiner Savett Inc., Independent Registered Public Accounting Firm				
23.2	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (included in Exhibit 5.1)				
24.1	Power of Attorney (contained on signature pages hereto)				

Item 9. Undertakings.

- A. 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. 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; 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 (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic 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 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 this 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 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, 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 Hayward, California, on the 22nd day of January, 2019.

PULSE BIOSCIENCES, INC.

By: /s/ Darrin R. Uecker

Darrin R. Uecker

President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Darrin R. Uecker and Brian B. Dow, and each of them, as his true and lawful attorney-in-fact and agent with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8 (including post-effective amendments), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy and agent 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 for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Darrin R. Uecker Darrin R. Uecker	President, Chief Executive Officer and Director (Principal Executive Officer)	January 22, 2019
/s/ Brian B. Dow Brian B. Dow	Chief Financial Officer, SVP Administration and Finance, Secretary & Treasurer (Principal Financial and Accounting Officer)	January 22, 2019
/s/ Robert W. Duggan Robert W. Duggan	Chairman of the Board of Directors	January 22, 2019
/s/ Kenneth A. Clark Kenneth A. Clark	Director	January 22, 2019
/s/ Thomas J. Fogarty, M.D. Thomas J. Fogarty, M.D.	Director	January 22, 2019
/s/ Manmeet S. Soni Manmeet S. Soni	Director	January 22, 2019
/s/ Mahkam Zanganeh Mahkam Zanganeh	Director	January 22, 2019

January 22, 2019

Pulse Biosciences, Inc. 3957 Point Eden Way Hayward, California 94545

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") to be filed by Pulse Biosciences, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 823,716 shares of the Company's common stock, par value \$0.001 per share (the "Shares"), reserved for issuance pursuant to the 2017 Equity Incentive Plan (the "Plan"). As the Company's legal counsel, we have reviewed the actions proposed to be taken by the Company in connection with the issuance and sale of the Shares to be issued under the Plan.

It is our opinion that the Shares, when issued and sold in the manner referred to in the Plan and pursuant to the agreements that accompany the Plan, will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, P.C

WILSON SONSINI GOODRICH & ROSATI, P.C.

Professional Corporation



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors Pulse Biosciences, Inc.

We hereby consent to the use in this Registration Statement on Form S-8 of our report dated March 16, 2018, relating to the consolidated balance sheets of Pulse Biosciences, Inc. as of December 31, 2017 and 2016, and the related consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes, which is incorporated by reference in the Registration Statement.

/s/ Gumbiner Savett Inc. January 22, 2019 Santa Monica, California