UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ProPhase Labs, Inc.

(Exact name of Registrant as specified in its charter)

Delaware

(State of or other jurisdiction of incorporation or organization)

23-2577138

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

621 N. Shady Retreat Road,
Doylestown, Pennsylvania 18901

(Address of Principal Executive Offices) (Zip Code)

Amended and Restated 2010 Equity Compensation Plan

(Full title of the plan)

Ted Karkus
Chief Executive Officer
621 N. Shady Retreat Road
Doylestown, Pennsylvania 18901

(Name and address of agent for service)

Tel: (215) 345-0919

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

Copy to:

Herbert Kozlov, Esq.
Aron Izower, Esq.
Reed Smith LLP
599 Lexington Avenue
New York, New York 10022
Tel: (212) 521-5400; Fax: (212) 521-5450

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 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 [] | Accelerated filer [] |
|-----------------------------|-------------------------------|
| Non-accelerated filer [] | Smaller reporting company [X] |
| | Emerging growth company [] |

CALCULATION OF REGISTRATION FEE

| | CALCULATION | OF REGISTRATIO | UNFEE | | | | |
|--------------------------------------|--------------------------------|---|-------|---|-----------|-------------------------------|--------|
| 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, \$0.0005 par value | 700,000 | \$ | 1.91 | \$ | 1,337,000 | \$ | 154.96 |

⁽¹⁾ This Registration Statement is being filed to register an additional 700,000 shares of common stock, par value \$0.0005 per share, of ProPhase Labs, Inc. that may be issued pursuant to the Amended and Restated 2010 Equity Compensation Plan (the "Plan"). Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 also covers such additional and indeterminate number of shares of common stock that may be necessary to adjust the number of shares of common stock reserved for delivery pursuant to the Plan in accordance with the anti-dilution provisions of the Plan as a result of a share split, share dividend, recapitalization or other similar transaction or adjustment affecting the common stock as specified in such anti-dilution provisions.

| eported on the Nasdaq Ca | FF- | , | | |
|--------------------------|-----|---|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

EXPLANATORY NOTE

This Registration Statement is filed for the purpose of registering an additional 700,000 shares of common stock, par value \$0.0005 per share (the "Common Stock"), of ProPhase Labs, Inc. (the "Company") pursuant to the Company's Amended and Restated 2010 Equity Compensation Plan (the "Plan"). This registration of 700,000 shares of Common Stock will increase the number of shares registered for issuance under the Plan to an aggregate of 3,181,500 shares of Common Stock, subject to adjustment as provided in the Plan. Pursuant to General Instruction E to Form S-8, the contents of the Registration Statement on Form S-8, filed on September 30, 2010 (Registration No. 333-169697) and the Registration Statement on Form S-8, filed on July 10, 2013 (Registration No. 333-189875), are incorporated by reference into this Registration Statement, except as amended hereby. Pursuant to General Instruction E of Form S-8, all information that has been incorporated by reference from these earlier registration statements is not repeated in this Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been previously filed by Registrant with the Securities and Exchange Commission (the "Commission"), shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof:

- 1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the Commission on February 24, 2017.
- 2. Our Current Reports on Form 8-K filed with the Commission on January 19, 2017, March 29, 2017 and April 19, 2017.
- 3. Our proxy statement on Schedule 14A, as filed with the Commission on April 20, 2017, to the extent incorporated by reference in our Annual Report on Form 10-K for the year ended December 31, 2016.
- 4. The description of our Common Stock set forth in the Company's registration statement on Form 8-A, filed with the Commission on October 25, 1996, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities and Exchange Act of 1934, as amended, before filing a post-effective amendment to this Registration Statement that indicates that all of the shares of Common Stock offered have been sold or which deregisters all of such shares the remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. In no event, however, will any information that the Company discloses under Item 2.02 or 7.01 of any Current Report on Form 8-K (unless otherwise indicated therein), including any exhibits furnished with such report, that the Company may from time to time furnish to the Commission be incorporated by reference into, or otherwise become part of, this Registration Statement. Any statement contained herein or 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 other subsequently filed document, which is, or is deemed to be, incorporated by reference, herein modifies or supersedes such earlier 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 6. Indemnification of Directors and Officers.

Our bylaws provide for indemnification of our directors and officers to the fullest extent permitted by Delaware law. Section 145 of the Delaware General Corporation Law (the "DGCL") provides that a corporation may indemnify any director, officer, employee or agent who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of the corporation), by reason of service in that capacity, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding 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 with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. However, with respect to actions 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 the court in which such action or suit is 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 which such court shall deem proper. A director or officer who is successful, on the merits or otherwise, in defense of any proceeding subject to the Delaware corporate statutes' indemnification provisions must be indemnified by the corporation for reasonable expenses incurred in connection therewith, including attorneys' fees.

Article V, Section 1 of our bylaws provides that the Company shall indemnify directors and officers under certain circumstances for liabilities and expenses incurred by reason of their activities in such capacities, if the individual acted in good faith and in a manner such individual reasonably believed to be in or not opposed to the best interests of the Company. We also have entered into indemnification agreements with our executive officers and directors and provide indemnity insurance pursuant to which directors and officers are indemnified or insured against liability or loss under certain circumstances.

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.

The above discussion of our bylaws and Section 145 of the DGCL is not intended to be exhaustive and is qualified in its entirety by such bylaws and statute.

Item 8. Exhibits.

The following exhibits are filed with or incorporated by reference into this Registration Statement and made a part hereof.

| Exhibit No. | Description |
|-------------|---|
| 4.1 | Articles of Conversion, as filed with the Secretary of State of the State of Nevada on June 18, 2015 (incorporated by reference to Exhibit 3.1 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.2 | Certificate of Conversion, as filed with the Secretary of State of the State of Delaware on June 18, 2015 (incorporated by reference to Exhibit 3.2 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.3 | Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 18, 2015 (incorporated by reference to Exhibit 3.3 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.4 | Bylaws, effective June 18, 2015 (incorporated by reference to Exhibit 3.4 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.1 | Investment Agreement by and between the Company and Dutchess, dated as of July 30, 2015 (incorporated by reference to Exhibit 4.1 of the registration statement on Form S-3 filed on August 5, 2015) |
| 4.2 | Registration Rights Agreement by and between the Company and Dutchess, dated as of July 30, 2015 (incorporated by reference to Exhibit 4.2 of the registration statement on Form S-3 filed on August 5, 2015) |
| 5.1 | Opinion of Reed Smith LLP |
| 23.1 | Consent of EisnerAmper LLP |
| 23.2 | Consent of Reed Smith LLP (included in Exhibit 5.1) |
| 24.1 | Power of Attorney (included on signature page hereto) |
| 99.1 | Amended and Restated 2010 Equity Compensation Plan (incorporated by reference to Exhibit A to Schedule 14A filed with the SEC on April 18, 2016) |

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, ProPhase Labs, Inc. 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 Doylestown, Pennsylvania, on April 26, 2017.

PROPHASE LABS, INC.

By: /s/ Ted Karkus

Ted Karkus

1 01 : 0 = ... 000

Chairman and Chief Executive Officer

POWER OF ATTORNEY

KNOW BY ALL MEN BY THESE PRESENTS that each person whose signature appears below hereby constitutes and appoints Ted Karkus and Robert V. Cuddihy, Jr., and each of them acting singly, as his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, to act, without the other, for him and in his name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement, including any subsequent registration statement for the same offering that may be filed under Rule 462(b), 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 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, their 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 has been signed by the following persons in the capacities and on the dates indicated.

| /s/ Ted Karkus Ted Karkus | Chairman and Chief Executive Officer (Principal Executive Officer) | April 26, 2017 |
|---|---|----------------|
| /s/ Robert V. Cuddihy, Jr. Robert V. Cuddihy, Jr. | Chief Financial Officer (Principal Financial and Accounting Officer) | April 26, 2017 |
| /s/ Jason Barr Jason Barr | Director | April 26, 2017 |
| /s/ Mark Burnett Mark Burnett | Director | April 26, 2017 |
| /s/ Louis Gleckel Louis Gleckel | Director | April 26, 2017 |
| /s/ Mark Leventhal Mark Leventhal | Director | April 26, 2017 |
| /s/ James McCubbin James McCubbin | Director | April 26, 2017 |

INDEX TO EXHIBITS

| Exhibit No. | Description |
|-------------|---|
| 4.1 | Articles of Conversion, as filed with the Secretary of State of the State of Nevada on June 18, 2015 (incorporated by reference to Exhibit 3.1 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.2 | Certificate of Conversion, as filed with the Secretary of State of the State of Delaware on June 18, 2015 (incorporated by reference to Exhibit 3.2 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.3 | Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 18, 2015 (incorporated by reference to Exhibit 3.3 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.4 | Bylaws, effective June 18, 2015 (incorporated by reference to Exhibit 3.4 of Form 8-K filed with the SEC on June 19, 2015) |
| 4.1 | Investment Agreement by and between the Company and Dutchess, dated as of July 30, 2015 (incorporated by reference to Exhibit 4.1 of the registration statement on Form S-3 filed on August 5, 2015) |
| 4.2 | Registration Rights Agreement by and between the Company and Dutchess, dated as of July 30, 2015 (incorporated by reference to Exhibit 4.2 of the registration statement on Form S-3 filed on August 5, 2015) |
| 5.1 | Opinion of Reed Smith LLP |
| 23.1 | Consent of EisnerAmper LLP |
| 23.2 | Consent of Reed Smith LLP (included in Exhibit 5.1) |
| 24.1 | Power of Attorney (included on signature page hereto) |
| 99.1 | Amended and Restated 2010 Equity Compensation Plan (incorporated by reference to Exhibit A to Schedule 14A filed with the SEC on April 18, 2016) |

Exhibit 5.1

Reed Smith LLP 599 Lexington Avenue New York, NY 10022-7650 +1 212 521 5400 Fax +1 212 521 5450 reedsmith.com

April 26, 2017

ProPhase Labs, Inc. 621 N. Shady Retreat Road Doylestown, Pennsylvania, 18901

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to ProPhase Labs, Inc., a Delaware corporation (the "Company"), in connection with the filing by the Company on the date hereof of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") covering the offer and sale of up to 700,000 shares of the Company's common stock, \$0.0005 par value per share (the "Shares"), issuable pursuant to the Company's 2010 Amended and Restated Equity Compensation Plan (the "2010 Plan").

This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as to the issue of the Shares.

In connection with the foregoing, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such documents, corporate records, certificates of public officials, and other instruments as we have deemed necessary or advisable for the purpose of rendering this opinion. As to questions of fact material to this opinion that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Based upon the foregoing, we are of the opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor in the circumstances contemplated by the Plans, and assuming in each case that the individual issuances, grants or awards under the Plans are duly authorized by all necessary corporate action of the Company and duly issued, granted or awarded and exercised in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company and the Shares will be validly issued, fully paid and non-assessable.

Our opinion is based solely on our review of the General Corporation Law of the State of Delaware and such corporate records as we deemed necessary or appropriate.

We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not thereby admit that we are within 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,

/s/ REED SMITH LLP

R EED S MITH LLP
a Limited Liability Partnership

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders ProPhase Labs, Inc.

We consent to the incorporation by reference in this Registration Statement of ProPhase Labs, Inc. on Form S-8 to be filed on or about April 26, 2017 of our report dated February 24, 2017, on our audits of the consolidated financial statements as of December 31, 2016 and 2015 and for each of the years in the three year period ended December 31, 2016, which report was included in the Annual Report on Form 10-K filed February 24, 2017.

/s/ EISNERAMPER LLP

Iselin, New Jersey April 26, 2017