UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Interpace Diagnostics Group, Inc. (Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

Morris Corporate Center 1, Building A 300 Interpace Parkway, Parsippany, NJ (Address of Principal Executive Offices) 22-2919486

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

> 07054 (Zip Code)

PDI, INC.

AMENDED AND RESTATED 2004 STOCK AWARD AND INCENTIVE PLAN

(Full title of plans)

Jack E. Stover President and Chief Executive Officer Interpace Diagnostics Group, Inc. Morris Corporate Center 1, Building A 300 Interpace Parkway, Parsippany, NJ 07054 Tel: (844) 405-9655 Fax: (862) 207-7810

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

(Copy to:)

Merrill M. Kraines, Esq. Pepper Hamilton LLP The New York Times Building 620 Eighth Avenue, 37th Floor New York, NY 10018 Tel: (212) 808-2711 Fax: (212) 286-9806 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		Accelerated filer	
Non-accelerated filer	\Box (Do not check if a smaller reporting company)	Smaller reporting company	\boxtimes

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, \$0.01 par value per share	1,571,256	\$0.145(2)	\$227,832.11(2)	\$26.41 ⁽²⁾
Common Stock, \$0.01 par value per share	878,744 ⁽³⁾	\$0.16 ⁽⁴⁾	\$140,599.05(4)	\$16.30 ⁽⁴⁾
Total	2,450,000	—	\$368,431.16	\$42.71

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 also covers an indeterminate number of shares of common stock that may be offered or issued by reason of stock splits, stock dividends or similar transactions.

(2) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) and (h) under the Securities Act based on the average of the high and low prices of the shares of common stock, as reported by NASDAQ on October 25, 2016.

(3) Represents shares of common stock subject to previously granted options under the PDI, Inc. Amended and Restated 2004 Stock Award and Incentive Plan that are outstanding as of the date this Registration Statement on Form S-8 is being filed.

(4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h)(1) under the Securities Act based on the exercise price per share of \$0.16 for 878,744 shares of common stock subject to previously granted options that are outstanding as of the date this Registration Statement on Form S-8 is being filed.

PART I

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

Item 1. Plan Information.

In accordance with the instructional Note to Part I of Form S-8 as promulgated by the Securities and Exchange Commission (the "SEC"), the information specified by Part I of Form S-8 has been omitted from this Registration Statement on Form S-8 for offers of common stock pursuant to the PDI, Inc. Amended and Restated 2004 Stock Award and Incentive Plan (the "Plan"). Interpace Diagnostics Group, Inc., formerly known as PDI, Inc. (the "Company," "we," "us" or "our"), has sent or given or will send or give documents containing the information specified by Part I of this Registration Statement on Form S-8 to participants in the Plan, as specified in Rule 428(b)(1)(i) under the Securities Act. While the Company is not filing such documents with the SEC, these documents constitute (along with the documents incorporated by reference into this Registration Statement on Form S-8 pursuant to Item 3 of Part II hereof) a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

Upon written or oral request, any of the documents incorporated by reference in Item 3 of Part II of this Registration Statement on Form S-8 (which documents are incorporated by reference in this Section 10(a) Prospectus), and other documents required to be delivered to eligible employees, non-employee directors and consultants, pursuant to Rule 428(b) under the Securities Act are available without charge by contacting:

> Chief Financial Officer Interpace Diagnostics Group, Inc. Morris Corporate Center I, Building A 300 Interpace Parkway Parsippany, NJ 07054 Telephone: (844) 405-9655

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents and information previously filed or to be filed by us with the SEC are incorporated by reference in this Registration Statement on Form S-8:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 filed with the SEC on March 30, 2016, as amended by Amendment No. 1 on Form 10-K/A filed with the SEC on April 29, 2016 and by Amendment No. 2 on Form 10-K/A filed with the SEC on June 14, 2016;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 filed with the SEC on May 12, 2016 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 filed with the SEC on August 15, 2016;
- our Current Reports on Forms 8-K or 8-K/A, as applicable, filed with the SEC on January 11, 2016, January 22, 2016, February 4, 2016, March 2, 2016, March 29, 2016, June 22, 2016, July 11, 2016, August 8, 2016, September 2, 2016, September 14, 2016, October 4, 2016, October 13, 2016, October 14, 2016 and October 20, 2016; and
- the description of our common stock contained in or incorporated by reference into Item 1 of Form 8-A filed with the SEC on May 13, 1998, including any amendment or report filed for the purpose of updating such description.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), subsequent to the date of this Registration Statement on Form S-8 and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement on Form S-8 and to be a part hereof from the date of filing of such documents.

Notwithstanding the foregoing, information furnished under Items 2.02 or 7.01 of any Current Report on Form 8-K, including the related exhibits, is not incorporated by reference in this Registration Statement on Form S-8 or any related prospectus.

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 on Form S-8 to the extent that a statement contained herein or in any other 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 on Form S-8.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

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Item 6. Indemnification of Directors and Officers.

The Company is incorporated under the laws of the State of Delaware. Section 145 of the General Corporation Law of the State of Delaware provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties 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 such corporation), by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise. The indemnity may include 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, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or other enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. The Company's Certificate of Incorporation, as amended, provides for the indemnification of its directors and officers to the fullest extent permitted under the Delaware General Corporation Law.

Section 102(b)(7) of the General Corporation Law of the State of Delaware permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Company's Certificate of Incorporation, as amended, includes such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by the Company upon delivery to it of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Company.

Each of the Company's executive officers and directors are parties to an indemnification agreement with the Company. The indemnification agreements supplement the indemnification provisions already contained in the Company's Certificate of Incorporation, as amended, and generally provide that the Company will indemnify each executive officer and director to the fullest extent permitted by law, subject to certain exceptions, against expenses, judgments, fines and other amounts incurred in connection with their service as an executive officer or director. The indemnification agreements also provide for rights to advancement of expenses and contribution. The obligations of the Company under the indemnification agreements continue after each executive officer or director has ceased to serve as an executive officer or director of the Company.

The Company has an insurance policy covering its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Item 7. Exemption from Registration Claimed.

Not applicable.

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EXHIBITS

DESCRIPTION
Opinion of Pepper Hamilton LLP
Consent of BDO USA, LLP
Consent of Pepper Hamilton LLP (contained in Exhibit 5.1 to this Registration Statement)
Power of Attorney (included on the signature page of this Registration Statement)

Item 9. Undertakings.

The undersigned Company 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 this 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 this 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 SEC 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 this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (1)(i) and (1)(ii) 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 SEC by the Company pursuant to Section 13 or 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.

The undersigned Company hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Company's annual report pursuant to Section 13(a) or 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.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the SEC 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 Company of expenses incurred or paid by a director, officer, or controlling person of the Company 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 Company 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 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 Township of Parsippany, State of New Jersey on October 26, 2016.

INTERPACE DIAGNOSTICS GROUP, INC.

By: /s/ Jack E. Stover Name: Jack E. Stover Title: President and Chief Executive Officer

POWER OF ATTORNEY

Each individual whose signature appears below constitutes and appoints Jack E. Stover, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorney-in-fact and agent 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 attorney-in-fact 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, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

/s/ Stephen J. Sullivan		
Stephen J. Sullivan	Chairman of the Board of Directors	October 26, 2016
/s/ Jack E. Stover		
Jack E. Stover	Director and President and Chief Executive Officer (principal executive officer)	October 26, 2016
/s/ James Early		
James Early	Chief Financial Officer (principal financial and accounting officer)	October 26, 2016
/s/ Joseph Keegan		
Joseph Keegan	Director	October 26, 2016

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EXHIBIT INDEX

EXHIBIT NUMBER DESCRIPTION

- 5.1 Opinion of Pepper Hamilton LLP
- 23.1 Consent of BDO USA, LLP
- 23.2 Consent of Pepper Hamilton LLP (contained in Exhibit 5.1 to this Registration Statement)
- 24.1 Power of Attorney (included on the signature page of this Registration Statement)

Interpace Diagnostics Group, Inc. Morris Corporate Center 1, Building A 300 Interpace Parkway Parsippany, NJ 07054

Re: <u>Registration Statement on Form S-8</u>

Ladies and Gentlemen:

Reference is made to the registration statement on Form S-8 (the "<u>Registration Statement</u>") of Interpace Diagnostics Group, Inc., a Delaware corporation (the "<u>Company</u>"), filed on the date hereof with the Securities and Exchange Commission (the "<u>Commission</u>") under the Securities Act of 1933, as amended (the "<u>Act</u>"). The Registration Statement covers 2,450,000 shares (the "<u>Shares</u>") of the Company's common stock, par value \$0.01 per share (the "<u>Common Stock</u>"), subject to adjustment as provided in the Company's Amended and Restated 2004 Stock Award and Incentive Plan (the "<u>Equity Incentive Plan</u>"), issuable by the Company pursuant to awards ("<u>Awards</u>") granted under the Equity Incentive Plan.

We have examined the Registration Statement, including the exhibits thereto, the Certificate of Incorporation, as amended, and the Amended and Restated By-laws of the Company, the Equity Incentive Plan, minutes of meetings of the Company's Board of Directors relating to the adoption, approval and authorization of the Equity Incentive Plan and such other documents as we have deemed appropriate in rendering this opinion. In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the authenticity of all documents submitted to us as copies of originals. Based on the foregoing, we are of the opinion that the Shares, when issued and paid for in accordance with the terms of the Equity Incentive Plan and the applicable Award, will be legally issued, fully paid and non-assessable.

This opinion is being furnished to the Company solely for submission to the Commission as an exhibit to the Registration Statement and, accordingly, may not be relied upon, quoted in any manner, or delivered to any other person or entity without, in each instance, our prior written consent.

We express no opinion herein as to the law of any state or jurisdiction other than the General Corporation Law of the State of Delaware, including statutory provisions and all applicable provisions of the Constitution of the State of Delaware and reported judicial decisions interpreting such laws of the State of Delaware and the federal laws of the United States of America.

We assume no obligation to supplement this opinion if any applicable law changes after the date hereof or if we become aware of any fact that might change the opinion expressed herein after the date hereof.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Pepper Hamilton LLP Pepper Hamilton LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Interpace Diagnostics Group, Inc.

Parsippany, New Jersey

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement on Form S-8 of our report dated March 29, 2016, relating to the consolidated financial statements and financial statement schedule of Interpace Diagnostics Group, Inc. (formerly known as PDI, Inc.) appearing in the Company's Annual Report on Form 10-K for the years ended December 31, 2015 and 2014. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

/s/BDO USA, LLP

Woodbridge, New Jersey

October 26, 2016