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) 22-2919486 (I.R.S. Employer Identification No.)

Morris Corporate Center 1, Building C 300 Interpace Parkway, Parsippany, NJ (Address of Principal Executive Offices)

07054 (Zip Code)

AMENDED AND RESTATED 2004 STOCK AWARD AND INCENTIVE PLAN (Full title of the plan)

Jack E. Stover
President and Chief Executive Officer
Interpace Diagnostics Group, Inc.
Morris Corporate Center 1, Building C
300 Interpace Parkway, Parsippany, NJ 07054
(Name and address of agent for service)

(855) 776-6419 (Telephone number, including area code, of agent for service)

with a 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

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	[] (Do not check if a smaller reporting company)	Smaller reporting company	[X]
		Emerging growth company	[]

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. []

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		Proposed	Maximum	
	Amount	Maximum	Aggregate	Amount of
Title of Securities	to be	Offering Price	Offering	Registration
to be Registered	Registered (1)	Per Share (2)	Price (2)	Fee (2)
Common Stock, par value \$0.01 per share	3,700,000 shares	\$ 0.91	\$ 3,367,000	\$ 419.19

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- (1) Represents shares of common stock, \$0.01 par value per share, of the Registrant (the "Common Stock") that were added to the shares authorized for issuance under the Amended and Restated 2004 Stock Award and Incentive Plan (the "Plan"), pursuant to the approval of such increase by the Registrant's stockholders at the annual meeting on September 14, 2017. Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of Common Stock which become issuable under the Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the outstanding shares of the Registrant.
- (2) This estimate is made solely for the purpose of calculating the registration fee pursuant to Rule 457(h) of the Securities Act. The price shown is based upon the average of the high and low prices reported for the common stock on The Nasdaq Capital Market on April 25, 2018.

EXPLANATORY NOTE

This Registration Statement is being filed for the purpose of registering an additional 3,700,000 shares of common stock, \$0.01 par value per share (the "Common Stock"), of Interpace Diagnostics Group, Inc. (the "Registrant") which are authorized for issuance under the Plan pursuant to the approval of such increase by the Registrant's stockholders at the annual meeting on September 14, 2017 and for which Registration Statements on Form S-8 relating to the same employee benefit plan are effective.

The Registrant previously filed Registration Statements on Form S-8 (File Nos. 333-61231, 333-60512, 333-123312, 333-61231, 333-60512, 333-177969, 333-201070 and 333-214260) with the Securities and Exchange Commission (the "Commission") to register 2,450,000 shares of Common Stock that were authorized for issuance under the Plan.

Upon the effectiveness of this Registration Statement, an aggregate of 6,150,000 shares of Common Stock will be registered for issuance from time to time under the Plan. Pursuant to General Instruction E to Form S-8, the contents of the Registration Statements on Form S-8 (File Nos. 333-61231, 333-60512, 333-123312, 333-61231, 333-60512, 333-177969, 333-201070 and 333-214260) filed with the Commission on August 12, 1998, May 9, 2001, March 14, 2005, April 11, 2005, November 14, 2011, December 18, 2014 and October 26, 2016 are incorporated herein by reference except to the extent supplemented, amended or superseded by the information set forth herein. Only those items of Form S-8 containing new information not contained in the earlier registration statements are presented herein.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents of the Registrant filed with the Commission are incorporated by reference in this Registration Statement as of their respective dates:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 23, 2018;
- (b) The Registrant's Current Report on Forms 8-K, as applicable (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that are related to such items) filed on March 13, 2018; and
- (c) The description of the Registrant's common stock contained in the Registrant's Form 8-A filed with the SEC on May 13, 1998 (Registration No. 000-24249) pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of further updating such description.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act 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 into this Registration Statement and to be a part hereof from the date of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with Commission rules shall not be deemed incorporated by reference into this Registration Statement. Any statement contained herein or in a document, all or a portion of which is 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 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 amended, to constitute a part of this Registration Statement.

Item 8. Exhibits.

Exhibit Number	Description
4.1	Amended and Restated 2004 Stock Award and Incentive Plan (incorporated by reference to the Registrant's Definitive Proxy
	Statement (File No. 000-24249), filed on August 14, 2017).
5.1	Opinion of Pepper Hamilton LLP (filed herewith).
23.1	Consent of BDO USA, LLP (filed herewith).
23.2	Consent of Pepper Hamilton LLP (included in Exhibit 5.1).
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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 the Township of Parsippany, State of New Jersey, on April 30, 2018.

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 held on the dates indicated.

Signature	Title	Date	
/s/ Jack E. Stover Jack E. Stover	President, Chief Executive Officer and Director (Principal Executive Officer)	April 30, 2018	
/s/ James Early James Early	Chief Financial Officer (Principal Financial Officer)	April 30, 2018	
/s/ Thomas Freeburg Thomas Freeburg	Chief Accounting Officer (Principal Accounting Officer)	April 30, 2018	
/s/ Stephen J. Sullivan Stephen J. Sullivan	Chairman of the Board of Directors	April 30, 2018	
/s/ Joseph Keegan Joseph Keegan	Director	April 30, 2018	
/s/ Felice Schnoll-Sussman Felice Schnoll-Sussman	Director	April 30, 2018	
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EXHIBIT INDEX

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The New York Times Building 37th Floor 620 Eighth Avenue New York, NY 10018-1405 212.808.2700 Fax 212.286.9806

Exhibit 5.1

April 30, 2018

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

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

Reference is made to the registration statement on Form S-8 (the "Registration Statement") of Interpace Diagnostics Group, Inc., a Delaware corporation (the "Company"), filed on the date hereof with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"). The Registration Statement covers 3,700,000 shares (the "Shares") of the Company's common stock, par value \$0.01 per share (the "Common Stock"), that were added to the shares authorized for issuance under the Company's Amended and Restated 2004 Stock Award and Incentive Plan (the "Equity Incentive Plan") pursuant to the approval of such increase by the Registrant's stockholders at the annual meeting on September 14, 2017.

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 authorization of the increase in 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, 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.

Philadelphia	Boston	Washin	ngton, D.C.	Los Angeles	New York	Pittsburgh
Detroit	Berwyn	Harrisburg	Orange County	Princeton	Silicon Valley	Wilmington
			www.pepperlaw.com	n		



Interpace Diagnostics Group, Inc. April 30, 2018 Page 2

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 Registration Statement on Form S-8 of our report dated March 22, 2018, relating to the consolidated financial statements and financial statement schedule of Interpace Diagnostics Group, Inc. appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

/s/ BDO USA, LLP

Woodbridge, New Jersey April 30, 2018