

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-8
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933**

MIMEDX GROUP, INC.

(Exact name of Registrant as specified in its charter)

Florida

*(State or other jurisdiction of
incorporation or organization)*

26-2792552

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

1775 West Oak Commons Ct., NE

Marietta, GA

(Address of principal executive offices)

30062

(Zip Code)

MiMedx Group, Inc.

Assumed 2006 Stock Incentive Plan

(Full title of the plan)

Michael J. Senken

MiMedx Group, Inc.

Chief Financial Officer

1775 West Oak Commons Ct., NE

Marietta, GA 30062

(770) 651-9100

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

COPY TO:

David W. Ghegan, Esq.

Troutman Sanders LLP

600 Peachtree Street, NE, Suite 5200

Atlanta, Georgia 30308

(404) 885-3139

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

Non-accelerated filer

(Do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)(2)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$0.001 per share	4,000,000	\$9.32 (3)	\$37,280,000.00	\$4,331.94

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also includes an indeterminate number of additional shares that may be offered and issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Represents increase of 4,000,000 shares available shares for issuance under the MiMedx Group, Inc. Assumed 2006 Incentive Plan.
- (3) Pursuant to Rules 457(c) and 457(h)(1) under the Securities Act, the offering price is estimated solely for the purpose of calculating the registration fee on the basis of the average of the high and low prices of the Registrant's Common Stock as reported on the NASDAQ Stock Market LLC on October 28, 2014.

REGISTRATION OF ADDITIONAL SECURITIES – STATEMENT PURSUANT TO GENERAL INSTRUCTION E OF FORM S-8

MiMedx Group, Inc. (the “Company”) has previously registered an aggregate of 22,500,000 shares of the Company’s Common Stock, par value \$0.001 per share (the “Common Stock”) by filing with the Securities and Exchange Commission (i) a Registration Statement on Form S-8 (File No. 333-189784) on July 3, 2013 (the 2013 Registration Statement), (ii) a Registration Statement on Form S-8 (File No. 333-183991) on September 19, 2012 (the “2012 Registration Statement”), and (iii) a Registration Statement on Form S-8 (File No. 333-153255) on August 29, 2008 (the “2008 Registration Statement”), in each case, relating to shares of Common Stock to be offered and sold under the Company’s Assumed 2006 Stock Incentive Plan, as amended (the “Incentive Plan”). The Company is hereby registering an additional 4,000,000 shares of Common Stock available for issuance under the Incentive Plan. Pursuant to and as permitted by General Instruction E to Form S-8, the contents of the 2008 Registration Statement, the 2012 Registration Statement and the 2013 Registration Statement are hereby incorporated by reference herein, and the opinions and consents listed in Item 8 below are attached hereto.

Part I - Information Required in the Section 10(a) Prospectus

Item 1. General Plan Information.

Not required to be filed with this Registration Statement*

Item 2. Registrant Information and Employee Plan Annual Information.

Not required to be filed with this Registration Statement*

* The documents containing the information specified in “Item 1. General Plan Information” and “Item 2. Registrant Information and Employee Plan Annual Information” of this Registration Statement will be sent or given to participants of the Plan as specified by Rule 428(b)(1) under the Securities Act. As permitted by Part I of Form S-8, such documents are not required to be, and are not, filed with the U.S. Securities and Exchange Commission (the “Commission”) either as part of this Registration Statement or as a prospectus or prospectus supplement pursuant to Rule 424 under the Securities Act. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Part II - Information Required in the Registration Statement

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company with the Securities and Exchange Commission (the “Commission”) are incorporated herein by reference:

- (a) Annual Report on Form 10-K for the year ended December 31, 2013, filed on March 4, 2014 and Form 10-K/A filed on April 30, 2014;
- (b) Quarterly Reports on Form 10-Q filed on May 12, 2014 and August 11, 2014;
- (c) Current Reports on Form 8-K filed on March 3, 2014, May 13, 2014 and July 31, 2014; and
- (d) The description of the Company’s Common Stock, no par value, contained in our Form 8-A Registration Statement filed April 22, 2013, including any amendment or report filed for the purpose of updating such description;

In addition, all reports and documents subsequently filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (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 then remaining unsold, shall be deemed to be incorporated by reference herein and to made a part hereof from the date of the filing of such 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 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.

Item 8. Exhibits.

The following exhibits are filed as a part of this Registration Statement:

Number	Description
3.1	Articles of Incorporation as filed with the Secretary of State of Florida on March 31, 2008 (incorporated by reference to Exhibit 3.1 filed with the Registrant's Form 10-Q on August 8, 2013)
3.1.1	Articles of Amendment to Articles of Incorporation as filed with the Secretary of the State of Florida on May 14, 2010 (incorporated by reference to Exhibit 3.2 filed with the Registrant's Form 10-Q on August 8, 2013)
3.1.2	Articles of Amendment to Articles of Incorporation as filed with the Secretary of the State of Florida on August 8, 2012 (incorporated by reference to Exhibit 3.3 filed with the Registrant's Form 10-Q on August 8, 2013)
3.1.3	Articles of Amendment to Articles of Incorporation as filed with the Secretary of the State of Florida on November 8, 2012 (incorporated by reference to Exhibit 3.4 filed with the Registrant's Form 10-Q on August 8, 2013)
3.2	Bylaws of MiMedx Group, Inc. effective February 29, 2008 (incorporated by referenced to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on April 2, 2008)
3.2.1	Amendment to the Bylaws of MiMedx Group, Inc. adopted by the Board of Directors on May 11, 2010 (incorporated by reference to the Exhibit 3.2 to the Registrant's Form 8-K filed on May 14, 2010)
5.1	Opinion of Troutman Sanders LLP
10.1	MiMedx Group, Inc. 2006 Assumed Stock Incentive Plan, as amended and restated effective February 25, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on March 3, 2014)
10.2	Form of Restricted Stock Agreement for Non-employee Directors (incorporated by reference to Exhibit 10.66 to the Registrant's Form 10-Q filed on August 8, 2013)
10.3	Form of Restricted Stock Agreement under the MiMedx Group, Inc. 2006 Assumed Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrants Form 10-K filed on March 4, 2014)
10.4	Form of Incentive Award Agreement under the MiMedx Group, Inc. 2006 Assumed Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrants Form 10-K filed on March 4, 2014)
10.5	Form of Nonqualified Incentive Award Agreement under the MiMedx Group, Inc. 2006 Assumed Stock Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrants Form 10-K filed on March 4, 2014)
23.1	Consent of Troutman Sanders LLP (included in Exhibit 5.1)
23.2	Consent of Cherry Bekaert LLP
24	Power of Attorney (included in the signature page hereto)

SIGNATURES

Pursuant to the requirements of the Securities Act, MiMedx Group, 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 the City of Marietta, State of Georgia, on this 4th day of November 2014.

MIMEDX GROUP, INC.

By: /s/ Michael J. Senken

Name: Michael J. Senken

Title: Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Parker H. Petit, Michael J. Senken and Roberta McCaw, and each or any one of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his 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 Securities and Exchange Commission, hereby 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, 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 date indicated below.

<u>Signature/Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Parker H. Petit</u> Parker H. Petit	Chairman of the Board, Chief Executive Officer and Director (principal executive officer)	November 4, 2014
<u>/s/ Michael J. Senken</u> Michael J. Senken	Chief Financial Officer (principal financial and accounting officer)	November 4, 2014
<u>/s/ William C. Taylor</u> William C. Taylor	President, Chief Operating Officer and Director	November 4, 2014
<u>/s/ Charles E. Koob</u> Charles E. Koob	Director	November 4, 2014
<u>/s/ Larry W. Papasan</u> Larry W. Papasan	Director	November 4, 2014
<u>/s/ Joseph G. Bleser</u> Joseph G. Bleser	Director	November 4, 2014
<u>/s/ J. Terry Dewberry</u> J. Terry Dewberry	Director	November 4, 2014

/s/ Bruce L. Hack Director November 4, 2014
Bruce L. Hack

/s/ Charles R. Evans Director November 4, 2014
Charles R. Evans

/s/ Neil S. Yeston Director November 4, 2014
Neil S. Yeston

TROUTMAN SANDERS

TROUTMAN SANDERS LLP
Attorneys at Law
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600 Peachtree Street, NE, Suite 5200
Atlanta, Georgia 30308-2216
404.885.3000 telephone
troutmansanders.com

November 4, 2014

MiMedx Group, Inc.
1775 West Oak Commons Court, NE
Marietta, Georgia 30062

Ladies and Gentlemen:

We have acted as counsel to MiMedx Group, Inc., a Florida corporation (the “Company”), in connection with the filing with the Securities and Exchange Commission (“SEC”) of a Registration Statement (the “Registration Statement”) on Form S-8 under the Securities Act of 1933, as amended (the “Act”), relating to the registration of 4,000,000 shares of the Company’s Common Stock, \$0.001 par value per share, (the “Plan Shares”), to be issued in connection with the MiMedx Group, Inc. 2006 Assumed Stock Incentive Plan, as amended (the “Plan”). This opinion is being provided at your request for inclusion in the Registration Statement.

In connection with this opinion, we have examined originals, or copies certified or otherwise identified to our satisfaction, of such instruments, certificates, records and documents, and have reviewed such questions of law, as we have deemed necessary or appropriate for purposes of this opinion. In such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to the original documents of all documents submitted as copies and the authenticity of the originals of such latter documents. As to any facts material to our opinion, we have relied upon the aforesaid instruments, certificates, records and documents and inquiries of your representatives.

Based upon the foregoing examination, we are of the opinion that, subject to compliance with the pertinent provisions of the Act and to compliance with such securities or “Blue Sky” laws of any jurisdiction as may be applicable and the maintenance of all requisite regulatory and other approvals, the Plan Shares have been duly authorized and, when issued by the Company in the manner contemplated by the Plan, will be validly issued, fully paid and nonassessable.

We do not purport to render an opinion based on the laws of any jurisdiction other than the Florida Business Corporation Act (including the relevant statutory provisions, the applicable provisions of the Constitution of the State of Florida and the reported judicial decisions interpreting these laws) and the federal laws of the United States of America, and we express no opinion herein as to the effect of any other laws. In addition, we are not opining on “blue sky” or other state securities laws.

We hereby consent to the filing of this opinion with the SEC as an exhibit to the Registration Statement. In giving the foregoing consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the SEC thereunder. This opinion may not be furnished or quoted to, or relied upon by, any other person for any other purpose, without our prior written consent.

Very truly yours,

/s/ Troutman Sanders LLP

EXHIBIT 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of MiMedx Group, Inc. and Subsidiaries on Form S-8 of our report dated March 4, 2014, appearing in the Annual Report on Form 10-K of MiMedx Group, Inc. for the year ended December 31, 2013 filed on March 4, 2014 with the Securities and Exchange Commission.

/s/ Cherry Bekaert LLP

Atlanta, Georgia
November 4, 2014