

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**SCHEDULE 13D/A**

Under the Securities Exchange Act of 1934  
(Amendment No. 5)\*

**MIMEDX GROUP, INC.**

(Name of Issuer)

Common Stock, \$0.001 par value per share

(Title of Class of Securities)

602496 10 1

(CUSIP Number)

Michael J. Senken  
MiMedx Group, Inc.  
1775 West Oak Commons Ct. N.E.  
Marietta, Georgia 30062  
(770) 651-9105

(Name, Address and Telephone Number of Person Authorized to  
Receive Notices and Communications)

January 15, 2015

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No.

1	NAMES OF REPORTING PERSONS Parker H. Petit
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input type="radio"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) SC, PF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="radio"/>
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 8,715,427(1)
	8	SHARED VOTING POWER 39,240 (2)
	9	SOLE DISPOSITIVE POWER 8,715,427(1)
	10	SHARED DISPOSITIVE POWER 39,240 (2)

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 8,754,667
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 8.0%(3)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN

(1) Includes 4,195,354 shares of Common Stock owned by Mr. Petit individually. Also includes an aggregate of 1,350,000 shares held by six Grantor Retained Annuity Trusts (GRATs) over which Mr. Petit serves as Trustee and possesses sole voting and investment control. Also includes 2,992,368 shares subject to options owned by Mr. Petit which are exercisable within the next 60 days and 177,705 shares of restricted stock which vest in accordance with the terms of the grant. Does not include 871,483 shares subject to stock options owned by Mr. Petit that will become exercisable after 60 days.

(2) Shares are owned by The Petit Family Foundation (the "Foundation"), a charitable organization for which Mr. Petit and his wife serve as Trustee. Each Trustee may be deemed to have voting and investment control over the Foundation's shares. Mr. Petit has no pecuniary interest in the shares owned by the Foundation and disclaims beneficial ownership.

(3) Based on 109,695,247 shares of Common Stock, which is comprised of 106,702,879 shares outstanding as of January 31, 2015, and 2,992,368 shares subject to options exercisable within the next 60 days, all deemed to be beneficially owned by Mr. Petit pursuant to Exchange Act Rule 13d-3, as of the date hereof.

This Amendment No. 5 amends and supplements the Schedule 13D filed by Parker H. Petit on March 6, 2009, (the "Schedule 13D") as previously amended by Amendment No. 1 to the Schedule 13D filed on June 4, 2009, ("Amendment No. 1"); Amendment No. 2 to the Schedule 13D filed on January 13, 2010, ("Amendment No. 2"); Amendment No. 3 to the Schedule 13D filed on January 23, 2013, ("Amendment No. 3") and Amendment No. 4 to the Schedule 13D filed on January 21, 2014 ("Amendment No. 4", and collectively with Amendment No. 1, Amendment No. 2, and Amendment No. 3, the "Prior Amendments").

Each Item below amends and supplements the information disclosed under the corresponding Item of the Schedule 13D. Unless otherwise indicated herein, capitalized terms used but not defined in this Amendment No. 5 shall have the same meaning herein as are ascribed to such terms in the Schedule 13D or the Prior Amendments, as applicable.

ITEM 1. SECURITY AND ISSUER

This statement on Schedule 13D (the "Schedule 13D") relates to the common stock, par value \$0.001 per share (the "Common Stock"), of MiMedx Group, Inc., a Florida corporation ("MiMedx" or the "Issuer"). The Issuer's business address is 1775 West Oak Commons Ct. N.E., Marietta, GA 30062.

ITEM 2. IDENTITY AND  
BACKGROUND

(a) This Schedule 13D is filed by Parker H. Petit.

(b) Mr. Petit's principal business address is 1775 West Oak Commons Ct. N.E., Marietta, Georgia 30062.

(c) Mr. Petit's principal occupation is serving as the Chairman of the Board and Chief Executive Officer of the Issuer.

(d) Mr. Petit has not, during the last five years, been convicted in a criminal proceeding.

(e) Mr. Petit has not, during the last five years, been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction where, as a result of such proceeding, Mr. Petit became subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Mr. Petit is a citizen of the United States.

ITEM 3. SOURCE AND AMOUNT OF  
FUNDS OR OTHER  
CONSIDERATION

The source and amount of funds or other consideration for previous acquisitions of shares, convertible debt, warrants and options were reported in the Schedule 13D as filed on March 6, 2009, and the Prior Amendments.

The shares owned by the GRATs were transferred into the GRATs on September 18, 2014 in an estate planning transaction. The shares owned by the Foundation were received as a gift from Mr. Petit on October 9, 2014. The options and restricted stock held by Mr. Petit were granted by the Issuer's Board of Directors as compensation for Mr. Petit's services as Chairman of the Board and Chief Executive Officer.

ITEM 4. PURPOSE OF  
TRANSACTION

The information set forth in Item 3 is hereby incorporated herein by reference.

As previously reported in the Prior Amendments, Mr. Petit acquired Common Stock for investment purposes through the Issuer's various private placements of stock, warrants and convertible debt in 2009, 2010 and 2011, and the exercise of such warrants and the conversion of such convertible debt. Additionally, the Issuer has granted options and restricted stock to Mr. Petit as compensation for his services as Chairman of the Board and Chief Executive Officer. The options and restricted stock vest in accordance with the terms of such grants.

Mr. Petit previously reported beneficial ownership of an aggregate of 3,750,000 shares of Common Stock held by Cox Road Partners, LLLP, Cox Road Partners II, LLLP, and Petit Investments, L.L.L.P II, limited liability limited partnerships (the "Partnerships") over which Mr. Petit possessed sole voting and investment control. Mr. Petit no longer beneficially owns these shares. For estate planning purposes, on March 24, 2014, Mr. Petit transferred his interest and no longer served as manager of Petit Management Company, LLC, the General Partner of each of the Partnerships. On January 15 and January 16, 2015, Mr. Petit transferred his remaining partnership interests in Cox Road Partners, LLLP and Cox Road Partners II, LLLP to his heirs and certain family trusts.

Mr. Petit also previously reported beneficial ownership of 150,000 shares of Common Stock held by the Parker H. Petit Grantor Trust (the "Grantor Trust") over which Mr. Petit served as the trustee. On April 7, 2014, these shares were distributed to the beneficiaries of the Grantor Trust (Mr. Petit's adult children) in accordance with the terms of the Grantor Trust, and, as such, Mr. Petit no longer beneficially owns these shares.

Finally, Mr. Petit previously reported beneficial ownership of 150,000 shares of Common Stock held by Petit Investments, L.P., a limited partnership where Mr. Petit served as General Partner and Limited Partner and possessed shared voting and investment control. On September 29, 2014, the shares held by Petit Investments, L.P. were distributed to the partners in a liquidating distribution. Mr. Petit received 39,240 of such shares in the distribution which were subsequently gifted to the Foundation.

It is expected that Mr. Petit's outstanding options and restricted stock will continue to vest in accordance with the terms of the applicable grants and that he may exercise his options once vested. In addition, it is currently expected that consistent with past practice, there may be future issuances of options and/or restricted stock to Mr. Petit. It is also currently expected that other employees, consultants and directors of the Issuer may in the future be issued options and/or restricted stock by the Issuer (as well as continue to vest in existing options and restricted stock grants), and as Chairman of the Board and Chief Executive Officer, Mr. Petit will evaluate any such issuances.

Mr. Petit intends to participate in and influence the affairs of the Issuer through the exercise of voting rights with respect to shares of Common Stock. In addition, Mr. Petit will influence the affairs of the Issuer in his capacity as the Chairman of the Board and Chief Executive Officer of the Issuer. From time to time, Mr. Petit intends to review the performance of his investments and consider or explore a variety of alternatives, including, without limitation: (a) the acquisition of additional securities of the Issuer or the disposition of securities of the Issuer; (b) an extraordinary corporate transaction, such as a merger, reorganization, or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries; (d) a change in the present Board of Directors or management of the Issuer; (e) a material change in the present capitalization or dividend policy of the Issuer; (f) any other material change in the Issuer's business or corporate structure; (g) changes in the Issuer's charter, bylaws, or instruments corresponding thereto, or other actions that may impede the acquisition of control of the Issuer by any person; (h) causing a class of securities of the Issuer to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) causing a class of equity securities of the Issuer to become eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934, as amended; or (j) any action similar to any of those enumerated above. Any alternatives that Mr. Petit may pursue will depend upon a variety of factors, including, without limitation, current and anticipated future trading prices for the Common Stock; the financial condition, results of operations, and prospects of the Issuer; general economic, financial market, and industry conditions; and the investment objectives of Mr. Petit. Except as set forth above, Mr. Petit has no present plans or proposals with respect to any of the matters set forth in paragraphs (a) through (j) of Item 4 of the Schedule 13D.

#### ITEM 5 INTEREST IN SECURITIES OF THE ISSUER

(a) The aggregate number of shares of the Issuer's Common Stock beneficially owned by Mr. Petit is 8,754,667. Of these, 4,195,354 shares are owned directly by Mr. Petit; (ii) 216,667 shares are owned by The Patricia M. Campbell 2014 Annuity Trust; (iii) 216,667 shares are owned by The William W. Petit 2014 Annuity Trust; (iv) 216,666 shares are owned by The Meredith K. Martin 2014 Annuity Trust; (v) 233,333 shares are owned by The Patricia M. Campbell 2014 Annuity Trust #2; (vi) 233,334 shares

are owned by The William W. Petit 2014 Annuity Trust #2; (vii) 233,333 shares are owned by Meredith K. Martin 2014 Annuity Trust #2; (viii) 39,240 shares are owned by the Foundation as to which shares Mr. Petit disclaims beneficial ownership; (ix) 2,992,368 shares are shares subject to options exercisable within 60 days; and (x) 177,705 are shares of restricted stock which vest in accordance with the terms of the grant. The number does not include 871,483 shares representing options that are exercisable after 60 days.

(b) Each of the entities referred to in Item 5(a)(ii) through (vii) is a Grantor Retained Annuity Trust (GRATs) formed by Mr. Petit for estate planning purposes. Mr. Petit is the trustee of each GRAT and has sole voting and investment power with respect to the shares owned by the GRATs. The Foundation is a charitable organization for which Mr. Petit and his wife serve as Trustee. Each Trustee may be deemed to have voting and investment control over the Foundation's shares. Mr. Petit has no pecuniary interest in the shares owned by the Foundation and disclaims beneficial ownership of these shares.

(c) The Reporting Person has not effected any transactions in the past sixty (60) days other than as set forth herein and the following:

On December 19, 2014, Mr. Petit made a gift of 15,000 shares of the Issuer's Common Stock. On December 30, 2014, Mr. Petit made gifts of an aggregate of 15,000 shares of the Issuer's Common Stock. On January 15, 2015, Mr. Petit made gifts of an aggregate of 33,000 shares of the Issuer's Common Stock.

(d) Not applicable

(e) Not applicable

ITEM 6      CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS  
                 OR RELATIONSHIPS WITH RESPECT TO SECURITIES  
                 OF THE ISSUER

The information set forth in Items 3 through 5 of this Schedule 13D is hereby incorporated herein by reference. Except as described in this Schedule 13D, there are at present no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 above and between such persons and any person with respect to any securities of the Issuer.

ITEM 7.      MATERIAL TO BE  
                 FILED AS EXHIBITS

None.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 12, 2015

/s/ Parker H. Petit

Parker H. Petit

ATTENTION: INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACT CONSTITUTE FEDERAL CRIMINAL VIOLATIONS (See 18 U.S.C. 1001).