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

FORM S-3 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 Court, NE Marietta, Georgia 30062 (770) 651-9100

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Parker H. Petit Chairman and Chief Executive Officer MiMedx Group, Inc. 1775 West Oak Commons Court, NE Marietta, Georgia 30062 (770) 651-9100

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

Copies to:

Roberta L. McCaw General Counsel and Secretary MiMedx Group, Inc. 1775 West Oak Commons Court, NE Marietta, Georgia 30062 Telephone: (770) 651-9100

Facsimile: (770) 218-6195 Email: rmccaw@mimedx.com T. Clark Fitzgerald III Womble Carlyle Sandridge & Rice, LLP 271 17th Street, NW, Suite 2400 Atlanta, Georgia 30363 Telephone: (404) 879-2455

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Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: S

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post–effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post–effective amendment thereto that shall become effective upon filing with the SEC pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post–effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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	0		Accelerated filer	S
Non-accelerated filer	0	Do not check if a smaller reporting company)	Smaller reporting company	0

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1) (2)	Maximum Offering Price Per Share (1)(2)		Maximum Aggregate Offering Price (1)(2)	mount of egistration Fee
Primary Offering:					
Common stock, par value \$0.001 per share					
Preferred stock, par value \$0.001 per share					
Warrants to purchase common stock					
Warrants to purchase preferred stock					
Units (3)					
Primary Offering Total			\$	100,500,000	\$ 13,708(4)
Secondary Offering:					
Common Stock par value \$0.001 per share	7,500,000	\$ 6.60	(5) \$	49,500,000	\$ 6,752(5)
TOTAL			\$	150,000,000	\$ 20,460

- (1) With respect to the primary offering, not required to be included pursuant to Form S-3 General Instruction II.D.
- (2) We are registering an indeterminate aggregate amount of securities of each identified class of securities up to a proposed aggregate offering price of \$ 100,500,000, which may be offered from time to time in unspecified numbers and at indeterminate prices, and as may be issued upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including under any applicable anti-dilution provisions. In addition, up to 7,500,000 shares of our Common Stock may be offered pursuant to this registration statement by the selling shareholders. This registration statement also covers any additional securities to be offered or issued from stock splits, stock dividends, recapitalizations or similar transactions.
- (3) Each unit will be issued under a unit agreement or other agreement and will represent an interest in one or more shares of common stock, shares of preferred stock, or warrants in any combination.
- (4) With respect to the primary offering, calculated pursuant to Rule 457(o) under the Securities Act.
- (5) With respect to the secondary offering, pursuant to Rule 457(c) of the rules and regulations under the Securities Act, the offering price and registration fee are computed based on the average of the high and low prices reported for the registrant's Common Stock traded on the NASDAQ Capital Market on June 28, 2013.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated July 3, 2013

PROSPECTUS

\$150,000,000



Common Stock Preferred Stock Warrants Units

MiMedx Group, Inc.(the "Company") may offer to sell from time to time common stock, preferred stock, warrants, and units of such securities. The preferred stock of the Company may be convertible into common stock or preferred stock of another series.

In addition, selling shareholders to be named in a prospectus supplement may offer, from time to time, shares of our common stock. To the extent that any selling shareholder resells any securities, the selling shareholder may be required to provide you with this prospectus and a prospectus supplement identifying and containing specific information about the selling shareholder and the terms of the securities being offered.

The Company may offer securities and selling shareholders may offer shares of our common stock at an aggregate offering price of up to \$150,000,000. The common stock, preferred stock, warrants, and units of the Company may be offered separately or together, in multiple series, in amounts, at prices and on terms that will be set forth in one or more prospectus supplements to this prospectus.

This prospectus describes some of the general terms that may apply to these securities and the general manner in which they may be offered. Each time the Company sells securities, a prospectus supplement will be provided that will contain specific information about the terms of any securities offered and the specific manner in which the securities will be offered. The prospectus supplement will also contain information, where appropriate, about material United States federal income tax consequences relating to, and any listing on a securities exchange of, the securities covered by the prospectus supplement. The prospectus supplement may add to, update or change the information in this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest in our securities. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

The Company may offer the securities directly to investors, through agents designated from time to time by the Company, or to or through underwriters or dealers. If any agents, underwriters, or dealers are involved in the sale of any of the securities, their names, and any applicable purchase price, fee, commission or discount arrangement with, between or among them will be set forth, or will be calculable from the information set forth, in an accompanying prospectus supplement. For more detailed information, see "Plan of Distribution."

Our common stock is traded on the NASDAQ Capital Market under the symbol "MDXG." On June 28, 2013, the last reported sale price of our common stock on the NASDAQ Capital Market was \$ 7.06. We have not yet determined whether any of the other securities that may be offered by this prospectus will be listed on any exchange, inter-dealer quotation system or over-the-counter system. If we decide to seek a listing for any of those securities, that will be disclosed in a prospectus supplement.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the
heading "Risk Factors" on page 4 of this prospectus and in our most recent Annual Report on Form 10-K, which is incorporated by reference
herein, updated and supplemented by our periodic reports and other information filed by us with the Securities and Exchange Commission and
incorporated by reference herein. The prospectus supplement applicable to each type or series of securities we or any selling shareholder offer may
contain a discussion of additional risks applicable to an investment in us and the particular type of securities we are offering under that prospectus
supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities o	r
determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.	

The date of this prospectus is ______, 2013.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the "SEC," using a "shelf" registration process. Under this shelf process, we may sell any combination of the securities described in this prospectus in one or more offerings and selling shareholders to be named in a prospectus supplement may, from time to time, sell our common stock up to a total aggregate dollar amount of \$150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find Additional Information."

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you. Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual document. You may obtain a copy of any document summarized in this prospectus at no cost by writing to or telephoning us at the address and telephone number given below. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document. See "Where You Can Find More Information" below.

You should rely only on the information contained in this prospectus and the accompanying prospectus supplement or incorporated by reference in these documents. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. If anyone provides you with different, inconsistent or unauthorized information or representations, you must not rely on them. This prospectus and the accompanying prospectus supplement are an offer to sell only the securities offered by these documents, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or any prospectus supplement is current only as of the date on the front of those documents.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing in our securities. You should read this entire prospectus carefully, including the section entitled "Risk Factors," any applicable prospectus supplement and the documents that we incorporate by reference into this prospectus and the prospectus supplement, before making an investment decision.

ABOUT MIMEDX GROUP, INC.

MiMedx® Group, Inc. is an integrated developer, manufacturer and marketer of patent protected regenerative biomaterial products and allografts processed from human amniotic membrane. "Innovations in Regenerative Biomaterials" is the framework behind our mission to give physicians products and tissues to help the body heal itself. Our biomaterial platform technologies include our tissue technologies, AmnioFix® and EpiFix® and the device technologies HydroFix® and CollaFix™.

Our Technology and Products

AmnioFix®, EpiFix® and other Tissue -Based Allografts

MiMedx is the leading supplier of allografts processed from amniotic tissue, having supplied over 150,000 allografts to date for application in the surgical, orthopedic, spinal, wound care, ophthalmic, and dental segments of healthcare. Our tissue-based products include our own brands, AmnioFix® and EpiFix®, as well as products that we supply on a private label or "OEM" basis. The Company continues to research new opportunities for amniotic tissue, and currently has several additional offerings in various stages of conceptualization and development.

We believe that all of our current tissue-based products, as well as those we expect to introduce in the near term, qualify for regulation solely under Section 361 of the Public Health Services Act. This means that AmnioFix® and EpiFix® are regulated differently than the other two MiMedx platform technologies, CollaFix™ and HydroFix®, which are regulated as medical devices for which Food and Drug Administration ("FDA") clearances or approvals are required prior to marketing in the United States. Products that are regulated solely under Section 361 of the Public Health Services Act do not need premarket clearance or approval in the United States, which accelerates our ability to bring new products to market.

Tissue Processing and Recovery

We operate a licensed tissue bank that is registered as an establishment with the FDA. We are an accredited member of the American Association of Tissue Banks ("AATB"). We partner with FDA registered tissue establishments, physicians and hospitals to recover donated placental tissue. After consent for donation is obtained, donors are screened for eligibility and the donated tissue is tested for safety in compliance with federal regulations and AATB standards on communicable disease transmission. All donor records and test results are reviewed by our Medical Director prior to the release of the tissue for processing.

Over several years, we have developed a unique and proprietary technique for processing allografts from the donated placental tissue. Our Purion® process produces an allograft that is safe, effective, and minimally manipulated. Our unique processing technique specifically focuses on maintaining the delicate multi-layered structure and collagen matrix of the tissue. The Purion® process does not subject materials to ultra-low temperature conditions during processing or storage. This technique helps maintain graft structure, provides optimal performance and allows the allograft to be stored at room temperature and have a five year shelf life. Additionally, each allograft incorporates specialized visual embossments that assist the surgeon with proper graft placement and orientation.

Our team is dedicated to providing safe, superior allografts that exceed customer expectations. To better satisfy the requirements and expectations of our customers, the Company maintains strict control on quality from the time of procurement. The Company has developed and implemented a Quality Management System in compliance with both FDA and AATB standards. Using this Quality Management System, the Company maintains strict control over each step of the manufacturing process.

EpiFix®

Our EpiFix® allograft is configured for external use. It is designed to enhance healing of wounds, as well as to reduce inflammation and scarring. Currently, EpiFix® is being used to treat chronic wounds, including diabetic foot ulcers, venous stasis ulcers, arterial ulcers and pressure ulcers, burns and surgical wounds (such as wounds following plastic surgery).

AmnioFix®

Our AmnioFix® allografts are configured for internal use. Currently, our AmnioFix® product line consists of three configurations, AmnioFix®, AmnioFix® Wrap and AmnioFix® Injectable:

- · AmnioFix® is provided in a sheet form. It is configured to enhance non-structural soft tissue healing and to minimize scar tissue formation after primary surgical repair. It is being used currently in spine, general and urology surgeries.
- · AmnioFix® Wrap also is supplied in a sheet form and is configured for the same purposes and AmnioFix®, but is optimized for use as a "wrap" for nerves, tendons or ligaments.
- · AmnioFix® Injectable is supplied in micronized powder form designed for injection into soft tissue areas. AmnioFix® Injectable is designed to reduce inflammation while enhancing healing of soft tissue micro tears. Currently, AmnioFix® Injectable is being used to treat conditions such as tendonitis, plantar fasciitis, lateral epicondylitis, medial epicondylitis, bursitis, strains and sprains.

Ophthalmic Surgery and Dental

Currently, allografts for ophthalmic surgery and dental and oral maxilla facial applications are sold on an OEM basis pursuant to agreements whereby we have granted third parties exclusive licenses to some of our technology for use in those fields in specified markets.

Medical Devices- CollaFix™ and HydroFix®

Our CollaFixTM technology combines an innovative means of creating fibers from soluble collagen and a specialized cross-linking process. MiMedx utilizes two separate cross-linking technologies for various applications. Initial laboratory and animal testing shows that the cross-linked collagen fibers produce a very strong, biocompatible, and durable construct that can be transformed into biomechanical constructs intended to treat a number of orthopedic soft-tissue trauma and disease disorders. The technology is licensed from Shriners Hospitals for Children and University of South Florida Research Foundation, Inc. pursuant to an exclusive, world-wide license to practice and use the technology and to manufacture, have manufactured, market, offer for sale and sell products incorporating the technology. We continue to evaluate how best to exploit this technology. We may license rights to specific aspects of our collagen technology to third parties for use in applications and indications that we choose not to exploit ourselves.

Our HydroFix® devices and products are based on licenses to certain patents and patent application rights to a PVA- based hydrogel, which is a water-based biomaterial that can be manufactured with a wide range of mechanical properties, including those that appear to mimic closely the mechanical and physical properties of natural, healthy human tissue. Our licenses allow us to manufacture, market, use and sell medical devices and products incorporating the claimed technology for (i) all neurological and orthopedic uses related to the human spine, (ii) neurological and orthopedic uses (including muscular and skeletal use) related to the rotator cuff, but excluding the product SaluBridge (which is made from Salubria® biomaterial and is currently cleared for use by the FDA) and (iii) for application as a surgical sheet anywhere in the body. Our licenses are exclusive, world-wide and perpetual. Because the addressable market for our HydroFix® products is somewhat limited, we do not expect significant expansion in the sales of this product line.

MiMedx Group, Inc. is incorporated under the laws of the State of Florida. All references to "MiMedx", the "Company," "we,", "us" or "our" in this prospectus mean MiMedx Group, Inc., a Florida corporation, and all entities owned or controlled by MiMedx Group, Inc., except where it is made clear that the term means only the parent company.

Our principal executive offices are located at 1775 West Oak Commons Court, NE, Marietta, Georgia 30062. Our telephone number is (770) 651-9100. Our website address is http://www.mimedx.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

SECURITIES REGISTERED HEREBY THAT MAY BE OFFERED

We may offer any of the following securities with a total value of up to \$150,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering:

- · common stock;
- · preferred stock, in one or more series;
- · warrants to purchase shares of common stock, shares of preferred stock or depositary shares; or
- · any combination of the foregoing securities, in units.

We refer to our common stock, preferred stock depositary shares, warrants and units collectively in this prospectus as the "securities." This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- · designation or classification;
- aggregate offering price;
- · rates and times of payment of dividends, if any;
- · redemption, conversion or sinking fund terms, if any;
- · voting or other rights, if any;
- · conversion prices, if any; and
- · important federal income tax considerations.

Common Stock. We may offer shares of our common stock. Our common stock currently is listed on the NASDAQ Capital Market under the symbol "MDXG." Shares of common stock that may be offered in this offering will, when issued and paid for, be fully paid and non-assessable.

Preferred Stock. We may offer shares of our preferred stock in one or more series. Our board of directors will determine the rights, preferences, privileges and restrictions of the preferred stock, including any dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock may or may not be convertible into shares of our common stock. If convertible, conversion may be mandatory or at your option and would be at prescribed conversion rates. Shares of preferred stock that may be offered in this offering will, when issued and paid for, be fully paid and non-assessable. The terms of the preferred stock we may offer under this prospectus and any prospectus supplement will be set forth in a certificate of designations relating to that series and will be incorporated by reference into the registration statement of which this prospectus is a part. We urge you to read the complete certificate of designations containing the terms of the applicable series of preferred stock, as well as the applicable prospectus supplement, and any related free writing prospectus that we may authorize to be provided to you, related to such series. We currently have no shares of preferred stock outstanding.

Warrants. We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or in combination with common stock, and/or preferred stock. In this prospectus, we have summarized certain general features of the warrants under "Description of

Warrants." We urge you, however, to read the applicable prospectus supplement, and any related free writing prospectus that we may authorize to be provided to you, related to the particular series of warrants being offered, as well as the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that contain the terms of the warrants. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that describe the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if any, in the applicable prospectus supplement relating to a particular series of warrants.

Holders of warrants will not be entitled, solely by virtue of being holders, to vote, to consent, to receive dividends, to receive notice as shareholders with respect to any meeting of shareholders for the election of directors or any other matter, or to exercise any rights as a holder of equity securities purchasable upon exercise of the warrants.

Units. We may issue units representing any combination of common stock, preferred stock, depositary shares and/or warrants from time to time. The units may be issued under one or more unit agreements. In this prospectus, we have summarized certain general features of the units.

We will incorporate by reference into the registration statement of which this prospectus is a part the form of unit agreement under which the units are designated, if any, describing the terms of the units we are offering before the issuance of the related units. We urge you to read the prospectus supplements related to any units being offered, as well as the complete unit agreement, if any, designating the units.

Selling Shareholders. The selling shareholders will offer up to 7,500,000 shares of our Common Stock.

RISK FACTORS

Investing in our securities involves a high degree of risk, including the following:

- · We have limited operating experience and a history of net losses, and we may never achieve or maintain profitability.
- · Our operating results may fluctuate significantly as a result of a variety of factors, many of which are outside of our control.
- · We are in a highly competitive field and face competition from large, well-established, tissue processors and medical device manufacturers, as well as new market entrants.
- · Many of our products have short regulatory timeframes and our competitors may be able to develop competitive products that are as or more effective than our products or that render our products and technologies less competitive or obsolete.
- · Our failure to compete effectively would have a material and adverse effect on our business, results of operations and financial condition.
- Our EpiFix® and AmnioFix® products are dependent on the availability of sufficient quantities of placental tissue from human donors, and any disruption in supply could adversely affect our business.
- · Our EpiFix® and AmnioFix® products are derived from human tissue and therefore have the potential for disease transmission.
- · We depend on key personnel.
- · We are dependent on our relationships with distributors and independent sales representatives to generate revenue.
- · The Company's principal market concentration of risk is related to our limited distribution channels.
- · We are investing significant capital in expanding our sales force, and there can be no assurance that these efforts will result in significant increases in sales.
- · A significant portion of our revenues comes from a limited number of accounts.
- · A significant portion of our revenues is derived from governmental accounts, and any change in the way those governmental accounts purchase products could adversely affect our business.
- · Our revenues depend on adequate reimbursement from public and private insurers and health systems.
- · Disruption of our manufacturing and processing could adversely affect our business, financial condition and results of operations.

- · To be commercially successful, we must convince physicians that our products are safe and effective alternatives to existing treatments and that our products should be used in their procedures.
- We will need to expand our organization, and we may be unable to manage rapid growth effectively.
- · Additional financing may be necessary for implementation of our growth strategy.
- · We face the risk of product liability claims and may not be able to obtain or maintain adequate product liability insurance.
- We may implement a product recall or voluntary market withdrawal due to product defects which could significantly increase our costs, damage our reputation and disrupt our business.
- · We may not be successful in commercializing all of our technologies for our medical device products, such as HydroFix® and CollaFix™.
- Our international business and prospects could be adversely impacted by risks inherent in international markets.
- Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain and may be inadequate, which would have a material and adverse effect on us.
- The prosecution and enforcement of patents licensed to us by third parties are not within our control, and without these technologies, our products may not be successful and our business would be harmed if the patents were infringed or misappropriated without action by such third parties.
- In the event a competitor infringes upon our licensed or pending patent or other intellectual property rights, enforcing those rights may be costly, uncertain, difficult and time consuming.
- We may become subject to claims of infringement of the intellectual property right of others, which could prohibit us from developing our products, require us to obtain licenses from third parties, or to develop non-infringing alternatives, and subject us to substantial monetary damages.
- · We may be subject to damages resulting from claims that we, our employees, or our independent contractors have wrongfully used or disclosed alleged trade secrets of others.
- · Our License Agreement for our CollaFixTM technology could be terminated.
- Reclassification of our EpiFix® and AminoFix® products from regulation under Section 361 of the Public Health Services Act could make
 the introduction of new tissue products more expensive and significantly delay the expansion of our tissue product offerings and subject us
 to additional post-market regulatory requirements.
- Obtaining and maintaining the necessary regulatory approvals for our medical device products is expensive and time-consuming and may impede our ability to exploit our HydroFix® and CollaFix™ technologies.
- · Our business is subject to continuing regulatory compliance by the FDA and other authorities, which is costly and our failure to comply could result in negative effects on our business.
- We and our sales representatives, whether employees or independent contractors, must comply with various federal and state anti-kickback, self referral, false claims and similar laws, any breach of which could cause a material adverse effect on our business, financial condition, and results of operations.
- · The implementation of the reporting and disclosure obligations of the Physician Payment Sunshine Act provisions of the Health Care Reform Law could adversely affect our business.

- We face significant uncertainty in the industry due to government healthcare reform.
- · The price of our common stock has been, and will likely continue to be, volatile.
- · The concentrated common stock ownership by certain of our executive officers and directors will limit your ability to influence corporate matters
- · The exercise of warrants or options may depress our stock price and may result in dilution to our common stockholders.
- · Our common stock may be thinly traded.
- · Securities analysts may elect not to report on our common stock or may issue negative reports that adversely affect the stock price.
- · We do not intend to pay cash dividends.
- We may become involved in securities class action litigation that could divert management's attention and harm its business.
- · Anti-takeover provisions in our organizational documents may discourage or prevent a change of control, even if an acquisition would be beneficial to shareholders, which could affect our share price adversely and prevent attempts by shareholders to replace or remove current management.

You should consider carefully the detailed discussion of these and other risk factors set forth in the documents and reports filed by us with the Securities and Exchange Commission, which we refer to as the SEC, that are incorporated by reference into this prospectus, as well as any risks described in any applicable prospectus supplement, before deciding whether to buy our securities. Additional risks not known to us or that we believe are immaterial may also significantly impair our business operations and could result in a complete loss of your investment.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and the documents incorporated by reference into this prospectus contain certain "forward—looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 with respect to our business, financial condition, liquidity and results of operations. Words such as "anticipates," "expects," "intends," "plans," "predicts," "believes," "seeks," "estimates," "could," "would," "will," "may," "can," "continue," "potential," "should," and the negative of these terms or other comparable terminology often identify forward—looking statements. Statements in this prospectus and the other documents incorporated by reference that are not historical facts are hereby identified as "forward—looking statements" for the purpose of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended (which we refer to as the "Exchange Act") and Section 27A of the Securities Act of 1933, as amended (which we refer to as the "Securities Act"). These forward—looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward—looking statements, including the risks discussed in this prospectus, in our Annual Report on Form 10—K for the fiscal year ended December 31, 2012 in Item 1A under "Risk Factors," our Quarterly Report on Form 10—Q for the period ended March 31, 2013, and the risks detailed from time to time in our future SEC reports. These forward—looking statements include, but are not limited to, statements about:

- · the advantages of our products;
- · our ability to develop future products;
- · our belief regarding the growth of our direct sales force resulting in increased revenues;
- expectations regarding government and other third-party payment or reimbursement for our products;
- · our beliefs regarding our relationships with our two largest distributors;

- · expectations regarding future revenue growth;
- expectations regarding whether anticipated cash from operating and financing activities and existing cash and cash equivalents will enable
 the company to meet its liquidity needs and fund its planned investment activities for the remainder of 2013 and for the first quarter of
 2014.
- expectations regarding the impact of the NASDAQ listing on the Company's stock price, shareholder base and shareholder value.
- · our ability to procure sufficient quantities of donated placentas for our products and future products;
- · market opportunities for our products and future products;
- · prospects for obtaining additional patents covering our proprietary technology;
- expectations regarding results of our clinical trials with respect to our products; and
- · our ability to compete effectively.

Many of the important factors that will determine these results are beyond our ability to control or predict. You are cautioned not to put undue reliance on any forward–looking statements, which speak only as of the date of this prospectus or, in the case of documents incorporated by reference, as of the date of such documents. Except as otherwise required by law, we do not assume any obligation to publicly update or release any revisions to these forward–looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information contained in this prospectus, any applicable prospectus supplement or documents incorporated by reference into this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of securities.

We file reports, proxy statements and other information with the SEC. You may read and copy any reports, proxy statements or other information filed by us at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including MiMedx Group, Inc. The address of the SEC website is http://www.sec.gov.

Important Information Incorporated By Reference

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

<u>SEC Filing (File No. 001–35887)</u>	Date of Filing
Quarterly Report on Form 10–Q for the quarter ended March 31, 2013	May 10, 2013
Amendment to the Form 8-A filed April 22, 2013	April 23, 2013
The description of our common stock contained in our Form 8-A	April 22, 2013
-	_
Annual Report on Form 10–K for the year ended December 31, 2012	March 15, 2013
Current Reports on Form 8-K	July 2, 2013
	June 26, 2013
	May 23, 2013
	May 15, 2013 *
	March 12, 2013
	February 4, 2013

^{*} A related Form 8-K/A was filed on July 2,2013.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8–K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial registration statement and prior to effectiveness of the registration statement, or (ii) from the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10–K, Quarterly Reports on Form 10–Q and Current Reports on Form 8–K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus, other than exhibits which are specifically incorporated by reference into such documents. Requests should be directed to Michael Senken at MiMedx Group, Inc., 1775 West Oak Commons Court, NE, Marietta, Georgia 30062 by calling us at (770) 651-9100.

USE OF PROCEEDS

Unless we provide otherwise in a supplement to this prospectus, we intend to use the net proceeds from the sale of our securities covered by this prospectus for general corporate purposes, including, but not limited to, research, development and further commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures, working capital and future acquisitions of complementary businesses, technology or products, although we currently have no agreements or commitments with respect to any such investment or acquisition. We will not receive any proceeds from the sale of shares of our common stock by any selling shareholder.

RATIO OF EARNINGS TO FIXED CHARGES

The following table contains our consolidated ratio of earnings to fixed charges for the periods indicated. You should read these ratios in connection with our consolidated financial statements, including the notes to those financial statements, incorporated by reference in this prospectus.

	For the Quarte	r Ended March	For the	Year Ended Decen	nber 31,		
	3	1,				For the Year E	nded March 31,
	2013	2012	2012	2011	2010	2009	2008
Ratio of Earnings to	-	-	-	-	-	-	-
Fixed Charges (1)							

(1) For the quarters ended March 31, 2013, March 31, 2012 and the years ended December 31, 2012, December 31, 2010, March 31, 2009 and March 31, 2008, we had no earnings and therefore, are unable to calculate the ratio of fixed charges to earnings. Our earnings for those periods were insufficient to cover fixed charges by \$1.3 million, \$.5 million, \$2.3 million, \$4 million, \$6 million, \$2 million, \$2 million, \$4 million, \$

• We have computed the ratio of earnings to fixed charges by dividing earnings by fixed charges. For the purposes of computing these ratios, "earnings" have been calculated by adding fixed charges to income (loss) from continuing operations before income taxes before adjustment for increase or loss from equity investees (if any), distributed income of equity investees (if any), and our share of losses before income taxes from equity investees for which charges arising from guarantees are included in listed charges (if any), non controlling interest (if any) and "fixed charges" as the sum of interest on debt and capitalized leases, amortization of debt premiums discount and expense, and an imputed interest factor included in rentals. Currently, we do not have any shares of preferred stock outstanding.

SELLING SHAREHOLDERS

This prospectus relates in part to the possible sale by certain of our shareholders, or the selling shareholders, who own shares of common stock granted under one of our stock incentive plans or resulting from the exercise of options granted under one of our stock incentive plans or acquired through an exemption from registration under Section 4(2) of the Securities Act and Regulation D promulgated thereunder, for transactions by an issuer not involving a public offering. We have issued 1,933,309 shares in the aggregate under the MiMedx Group, Inc. Assumed 2006 Stock Incentive Plan, the MiMedx Group, Inc. Amended and Restated Assumed 2005 Stock Plan, and the MiMedx, Inc. Assumed 2007 Stock Plan to directors and executive officers who a currently serving as such. The shares acquired in private placements were acquired pursuant to:

- the conversion of 3% Convertible Senior Secured Promissory Notes we issued in May 2009;
- · common stock sold by us in November 2009, or the common stock issued upon exercise of related warrants issued as part of the placement;
- · common stock originally issued in connection with our December 2010 acquisition of Surgical Biologics, upon conversion of the Secured Convertible Promissory Note we issued in connection with that acquisition, or earned as contingent consideration;
- · common stock issued by us in connection with the private placement we commenced in October 2010, or the common stock issued upon exercise of related warrants issued as part of the placement;
- · conversion of the 5% Convertible Senior Secured Promissory Note we issued in March, 2011 and December, 2011 and exercise of related warrants issued in connection with the placements.

These initial purchasers of our securities, as well as their transferees, pledges, donees or successors, all of whom we refer to as "selling shareholders," may from time to time offer and sell the securities pursuant to this prospectus (as amended) and any applicable prospectus supplement.

The applicable prospectus (as amended) or prospectus supplement will set forth the name of each of the selling shareholders, the amount of common stock owned by each selling shareholder prior to the offering, the number of shares of our common stock to be offered by each selling shareholder and the amount of the common stock to be owned by each selling shareholder after completion of the offering. The applicable prospectus (as amended) or prospectus supplement will also disclose whether any of the selling shareholders has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the prospectus (as amended) or prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock, together with the additional information we include in any applicable prospectus supplement and in any related free writing prospectuses, summarizes the material terms and provisions of the common stock and preferred stock that we may offer under this prospectus. The following description of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, our Articles of incorporation, as amended, and our Bylaws, as amended, which are exhibits to the registration statement of which this prospectus forms a part, and by applicable law. We refer in this section to our Articles of Incorporation, as amended, as our articles of incorporation, and we refer to our Bylaws as our bylaws. The terms of our common stock and preferred stock may also be affected by Florida law.

Authorized Capital Stock

The Company's authorized capital stock consists of 130,000,000 shares of common stock, \$0.001 par value ("common stock") and 5,000,000 shares of preferred stock, \$0.001 par value per share ("preferred stock"). As of June 30, 2013, there were 96,236,451 shares of common stock outstanding net of 50,000 treasury shares. The shares of common stock currently outstanding are validly issued, fully paid and non-assessable. There were no shares of preferred stock outstanding as of June 30, 2013.

Common Stock

Voting

Holders of our common stock are entitled to one vote per share held of record on matters to be voted on by shareholders and also are entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor.

Holders of our common stock have exclusive voting rights for the election of our directors and all other matters requiring shareholder action, except with respect to amendments to our articles of incorporation that alter or change the powers, preferences, rights or other terms of any outstanding preferred stock if the holders of such affected series of preferred stock are entitled to vote on such an amendment or filling vacancies on the board of directors. Except as otherwise provided by law or in our articles of incorporation or bylaws, the approval by holders of a majority of the shares of common stock present in person or represented by proxy at a meeting and entitled to vote is sufficient to authorize, affirm, ratify or consent to a matter voted on by shareholders. The Florida Business Compensation Act, or "FBCA," requires the approval of the holders of a majority of the outstanding stock entitled to vote for certain extraordinary corporate transactions, such as a merger, sale of substantially all assets, dissolution or amendment of the articles of incorporation. Holders of our common stock do not have cumulative voting rights. As a result, the holders of a majority of the shares of common stock voting for the election of directors may elect all of the Company's directors if they choose to do so, and in such event, the holders of the remaining shares of common stock will not be able to elect any person or persons to the Board of Directors.

Dividends

Holders of common stock are entitled to share ratably in any dividends declared by our board of directors, subject to any preferential dividend rights of any outstanding preferred stock. Dividends consisting of shares of common stock may be paid to holders of shares of common stock. We do not intend to pay cash dividends in the foreseeable future.

Liquidation and Dissolution

Upon our liquidation or dissolution, the holders of our common stock will be entitled to receive pro rata all assets remaining available for distribution to shareholders after payment of all liabilities and provision for the liquidation of any shares of preferred stock at the time outstanding.

Other Rights and Restrictions

Our common stock has no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such stock. Our common stock is not subject to redemption by us. Our articles of incorporation and bylaws do not restrict the ability of a holder of common stock to transfer the shareholder's shares of common stock. If we issue shares of common stock under this prospectus, the shares will be fully paid and non–assessable and will not have, or be subject to, any preemptive or similar rights.

The Company reserves the rights to repeal, alter, amend or rescind any provision contained in its articles of incorporation or bylaws.

Listing

Our common stock is listed on The NASDAQ Capital Market under the symbol "MDXG."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Interwest Transfer Company, Inc. It is located at 1981 Murray Holladay Road, Suite 100, Salt Lake City, Utah 84117, and its telephone number is (801) 272-9294.

Preferred Stock

Our board of directors has the authority to issue up to 5,000,000 shares of preferred stock in one or more series and to determine the rights and preferences of the shares of any such series without shareholder approval, none of which are outstanding. Our board of directors may issue preferred stock in one or more series and has the authority to fix the designation and powers, rights and preferences and the qualifications, limitations, or restrictions with respect to each class or series of such class without further vote or action by the shareholders.

If we decide to issue any preferred stock pursuant to this prospectus, we will describe in a prospectus supplement the terms of the preferred stock, including, if applicable, the following:

- the title of the series and stated value;
- the number of shares of the series of preferred stock offered, the liquidation preference per share, if applicable, and the offering price;
- the applicable dividend rate(s) or amount(s), period(s) and payment date(s) or method(s) of calculation thereof;
- the date from which dividends on the preferred stock will accumulate, if applicable;
- any procedures for auction and remarketing;
- any provisions for a sinking fund;
- any applicable provision for redemption and the price or prices, terms and conditions on which preferred stock may be redeemed;
- any securities exchange listing;
- any voting rights and powers;
- the terms and conditions, if applicable, of conversion into shares of our common stock, including the conversion price or rate or manner of
 calculation thereof:
- a discussion of any material U.S. federal income tax considerations;
- the relative ranking and preference as to dividend rights and rights upon our liquidation, dissolution or the winding up of our affairs;
- any limitations on issuance of any series of preferred stock ranking senior to or on a parity with such series of preferred stock as to dividend rights and rights upon our liquidation, dissolution or the winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of such series of preferred stock.

While providing desirable flexibility for possible acquisitions and other corporate purposes, and eliminating delays associated with a shareholder vote on specific issuances, the issuance of preferred stock could adversely affect the voting power of holders of common stock as well as dividend and liquidation payments on both common stock and preferred stock. The ability of our board of directors to issue preferred stock without shareholder approval could also have the effect of delaying, deferring or preventing a change of control of us or the removal of existing management.

Certain Anti-Takeover Provisions of Florida Law and our Articles of Incorporation and Bylaws

The Company is subject to the Florida affiliated transactions statute, which generally requires approval by the disinterested directors or supermajority approval by shareholders for "affiliated transactions" between a corporation and an "interested stockholder." An "interested stockholder" is any person who is the beneficial owner of more than 10% of the outstanding voting stock of the corporation. The "affiliated transactions" covered by the statute include, with certain exceptions, (a) mergers and consolidations to which the corporation and the interested stockholder are parties, (b) sales or other dispositions of the corporation's assets to the interested stockholder having an aggregate market value of 5% or more of the outstanding shares of the corporation, having an aggregate value of 5% or more of the assets, on a consolidated basis, of the corporation, or representing 5% or more of the earning power or net income of the corporation, (c) issuances by the corporation of its securities to the interested stockholder having an aggregate market value equal to 5% or more of the aggregate market value of all the corporation's outstanding shares, (d) the adoption of any plan for the liquidation or dissolution of the corporation proposed by or pursuant to an arrangement with the interested stockholder, (e) any reclassification of the corporation's securities that has the effect of increasing by more than 5% the percentage of outstanding voting shares of the corporation. Accordingly, these provisions may discourage attempts to acquire the Company.

These provisions of Florida law and the Company's articles of incorporation and bylaws could prohibit or delay mergers or other takeover or change of control of the Company and may discourage attempts by other companies to acquire us, even if such a transaction would be beneficial to the Company's shareholders.

Staggered Board of Directors

Our articles of incorporation and bylaws provide that our board of directors be classified into three classes of directors of approximately equal size. As a result, in most circumstances, a person can gain control of our board only by successfully engaging in a proxy contest at two or more annual meetings.

Authorized But Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuances without shareholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, corporate acquisitions, employee benefit plans and shareholder rights plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Special Meetings

Pursuant to our bylaws, special meetings of the shareholders may be called only by the Chairman of the Board or Chief Executive Officer at the request in writing of a majority of the board of directors then in office or at the request in writing of shareholders owning not less than 50% of all votes entitled to be cast at the special meeting.

Charter and Bylaws Provisions

In addition, the Company's articles of incorporation and bylaws include other provisions that may deter or impede hostile takeovers or changes of control or management. These provisions include the following:

- Directors may be removed from office only for cause at a meeting of shareholders called for the purpose at which 66-21% of the shares are voted for such removal;
- · Allowing the Board to fill vacancies; and
- · Cumulative voting is not allowed in the election of the Company's directors.

Stock Options and Restricted Stock Awards

As of June 30, 2013, the Company had issued and outstanding options to purchase an aggregate of approximately 16 million shares of Common Stock (net of forfeitures, expirations and cancellations) pursuant to its Stock Option Plans, at exercise prices between \$.50 and \$ 6.75. Of such options, approximately 7 million were exercisable as of June 30, 2013. As of June 30, 2013, the Company had issued and outstanding approximately 280,000 shares of restricted stock that are subject to future time-based vesting and a risk of forfeiture.

DESCRIPTION OF UNITS

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. Units may be offered independently or together with common stock, preferred stock, and/or warrants offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future units that we may offer under this prospectus, we will describe the particular terms of any series of units that we may offer in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We may issue the units under a unit agreement. We use the term "unit agreement" to refer to any of these unit agreements. We will incorporate by reference into the registration statement of which this prospectus is a part of the form of unit agreement, including a form of unit certificate, if any, that describes the terms of the series of units we are offering before the issuance of the related series of units. The following description of the unit agreement and the units summarizes those aspects of the units and those portions of the unit agreement that we believe will be most important to your decision to invest in our units. You should keep in mind, however, that it is the unit agreement, and not this summary, that defines your rights as a holder of units. There may be other provisions in the unit agreement that are also important to you. The particular terms of the units offered by any prospectus supplement and the extent to which the general provisions described below may apply to such units will be outlined in the applicable prospectus supplement. We urge you to read the applicable prospectus supplements related to the units that we sell under this prospectus, as well as the complete unit agreements that contain the terms of the units. See "Where You Can Find More Information" for information on how to obtain a copy of the unit agreement when it is filed.

General

We may issue units comprised of one or more shares of common stock, shares of preferred stock, and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- The designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- Any provisions of the governing unit agreement that differ from those described in this prospectus; and
- · Any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Capital Stock," and "Description of Warrants," will apply to each unit and to any common stock, preferred stock, debt security, or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent, if there is one, will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in a case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We or the unit agent, if there is one, and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purposes and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular warrants we are offering before the issuance of the related warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock and preferred stock, and the warrants may be attached to or separate from these securities.

We may evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into a warrant agreement with a warrant agent. We will indicate the name and address and other information regarding the warrant agent in the applicable prospectus supplement relating to particular warrants.

If we decide to issue warrants pursuant to this prospectus, we will specify in a prospectus supplement the terms of the warrants, including, if applicable, the following:

- the offering price and aggregate number of warrants offered;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- the date on and after which the warrants and the related securities will be separately transferable;
- the number of shares of stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- a discussion of any material U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants may have no rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase shares of our stock at the exercise price that we describe in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. If we so indicate in the applicable prospectus supplement, the warrants may also provide that they may be exercised on a "cashless" or net basis. We will set forth on the reverse side of the warrant certificate, if applicable, and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to us or a warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at our offices, the corporate trust office of a warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the common stock or preferred stock purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender shares of common stock or preferred stock as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of Florida.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus from time to time in one or more transactions, including without limitation:

- directly to one or more purchasers;
- through agents;
- to or through underwriters, brokers or dealers;
- through a combination of any of these methods.

A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including without limitation, warrants, subscriptions, exchangeable securities, forward delivery contracts and the writing of options.

In addition, the manner in which we may sell some or all of the securities covered by this prospectus includes, without limitation, through:

- a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers; or
- privately negotiated transactions.

We may also enter into hedging transactions. For example, we may:

- enter into transactions with a broker-dealer or affiliate thereof in connection with which such broker-dealer or affiliate will engage in short sales of the common stock pursuant to this prospectus, in which case such broker-dealer or affiliate may use shares of common stock received from us to close out its short positions;
- sell securities short and redeliver such shares to close out our short positions;
- enter into option or other types of transactions that require us to deliver common stock to a broker-dealer or an affiliate thereof, who will then resell or transfer the common stock under this prospectus; or
- loan or pledge the common stock to a broker-dealer or an affiliate thereof, who may sell the loaned shares or, in an event of default in the case of a pledge, sell the pledged shares pursuant to this prospectus.

In addition, we may enter into derivative or hedging transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with such a transaction, the third parties may sell securities covered by and pursuant to this prospectus and an applicable prospectus supplement or pricing supplement, as the case may be. If so, the third party may use securities borrowed from us or others to settle such sales and may use securities received from us to close out any related short positions. We may also loan or pledge securities covered by this prospectus and an applicable prospectus supplement to third parties, who may sell the loaned securities or, in an event of default in the case of a pledge, sell the pledged securities pursuant to this prospectus and the applicable prospectus supplement, as the case may be.

A prospectus supplement with respect to each offering of securities will state the terms of the offering of the securities, including:

- the name or names of any underwriters or agents and the amounts of securities underwritten or purchased by each of them, if any;
- the public offering price or purchase price of the securities and the net proceeds to be received by us from the sale;
- any delayed delivery arrangements;
- any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or markets on which the securities may be listed.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to the prevailing market prices; or
- at negotiated prices.

General

Any public offering price and any discounts, commissions, concessions or other items constituting compensation allowed or reallowed or paid to underwriters, dealers, agents or remarketing firms may be changed from time to time. Underwriters, dealers, agents and remarketing firms that participate in the distribution of the offered securities may be "underwriters" as defined in the Securities Act. Any discounts or commissions they receive from us and any profits they receive on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify any underwriters, agents or dealers and describe their commissions, fees or discounts in the applicable prospectus supplement or pricing supplement, as the case may be.

Underwriters and Agents

If underwriters are used in a sale, they will acquire the offered securities for their own account. The underwriters may resell the offered securities in one or more transactions, including negotiated transactions. These sales may be made at a fixed public offering price or prices, which may be changed, at market prices prevailing at the time of the sale, at prices related to such prevailing market price or at negotiated prices. We may offer the securities to the public through an underwriting syndicate or through a single underwriter. The underwriters in any particular offering will be mentioned in the applicable prospectus supplement or pricing supplement, as the case may be.

Unless otherwise specified in connection with any particular offering of securities, the obligations of the underwriters to purchase the offered securities will be subject to certain conditions contained in an underwriting agreement that we will enter into with the underwriters at the time of the sale to them. The underwriters will be obligated to purchase all of the securities of the series offered if any of the securities are purchased, unless otherwise specified in connection with any particular offering of securities. Any initial offering price and any discounts or concessions allowed, reallowed or paid to dealers may be changed from time to time.

We may designate agents to sell the offered securities. Unless otherwise specified in connection with any particular offering of securities, the agents will agree to use their best efforts to solicit purchases for the period of their appointment. We may also sell the offered securities to one or more remarketing firms, acting as principals for their own accounts or as agents for us. These firms will remarket the offered securities upon purchasing them in accordance with a redemption or repayment pursuant to the terms of the offered securities. A prospectus supplement or pricing supplement, as the case may be, will identify any remarketing firm and will describe the terms of its agreement, if any, with us and its compensation.

In connection with offerings made through underwriters or agents, we may enter into agreements with such underwriters or agents pursuant to which we receive our outstanding securities in consideration for the securities being offered to the public for cash. In connection with these arrangements, the underwriters or agents may also sell securities covered by this prospectus to hedge their positions in these outstanding securities, including in short sale transactions. If so, the underwriters or agents may use the securities received from us under these arrangements to close out any related open borrowings of securities.

Dealers

We may sell the offered securities to dealers as principals. We may negotiate and pay dealers' commissions, discounts or concessions for their services. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with us at the time of resale. Dealers engaged by us may allow other dealers to participate in resales.

Direct Sales

We may choose to sell the offered securities directly. In this case, no underwriters or agents would be involved.

Institutional Purchasers

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or pricing supplement, as the case may be, will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

Indemnification; Other Relationships

We may have agreements with agents, underwriters, dealers and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business. This includes commercial banking and investment banking transactions.

Market-Making, Stabilization and Other Transactions

There is currently no market for any of the offered securities, other than the common stock which is listed on the NASDAQ Capital Market. If the offered securities are traded after their initial issuance, they may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar securities and other factors. While it is possible that an underwriter could inform us that it intends to make a market in the offered securities, such underwriter would not be obligated to do so, and any such market—making could be discontinued at any time without notice. Therefore, no assurance can be given as to whether an active trading market will develop for the offered securities. We have no current plans for listing of the preferred stock or warrants on any securities exchange or on the National Association of Securities Dealers, Inc. automated quotation system; any such listing with respect to any particular preferred stock or warrants will be described in the applicable prospectus supplement or pricing supplement, as the case may be.

In connection with any offering of common stock, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, syndicate covering transactions and stabilizing transactions. Short sales involve syndicate sales of common stock in excess of the number of shares to be purchased by the underwriters in the offering, which creates a syndicate short position. "Covered" short sales are sales of shares made in an amount up to the number of shares represented by the underwriters' over–allotment option. In determining the source of shares to close out the covered syndicate short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over–allotment option. Transactions to close out the covered syndicate short involve either purchases of the common stock in the open market after the distribution has been completed or the exercise of the over–allotment option. The underwriters may also make "naked" short sales of shares in excess of the over–allotment option. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of bids for or purchases of shares in the open market while the offering is in progress for the purpose of pegging, fixing or maintaining the price of the securities.

In connection with any offering, the underwriters may also engage in penalty bids. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

Fees and Commissions

In compliance with the guidelines of the Financial Industry Regulatory Authority (the "FINRA"), the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement or pricing supplement, as the case may be; however, it is anticipated that the maximum commission or discount to be received in any particular offering of securities will be significantly less than this amount.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, Womble Carlyle Sandridge & Rice, LLP, will provide opinions regarding the authorization and validity of the securities. Any underwriters will also be advised about legal matters by their own counsel, which will be named in the prospectus supplement.

EXPERTS

Cherry Bekaert LLP, an independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended December 31, 2012 and 2011, included in our Annual Report on Form 10–K for the year ended December 31, 2012, and the effectiveness of our internal control over financial reporting as of December 31, 2012, as set forth in their reports, which are incorporated by reference in the registration statement. Our financial statements as of and for the years ended December 31, 2012 and December 31, 2011, are incorporated by reference in reliance on Cherry Bekaert LLP reports given on their authority as experts in accounting and auditing.



\$150,000,000

Common Stock Preferred Stock Warrants Units
PROSPECTUS
, 2013

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PART II INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The expenses relating to the registration of the securities will be borne by the registrant. Such expenses (except the SEC Registration Fee) are estimated to be as follows:

	A	amount to be paid*
SEC Registration Fee	\$	20,460
Accounting Fees and Expenses	\$	5,000
Legal Fees and Expenses	\$	35,000
Printing expenses	\$	5,000
Trustees' Fees and Expenses	\$	0
Miscellaneous expenses	\$	5,000
Total	\$	70,460

^{*} Since an indeterminate amount of securities is covered by this registration statement, the expenses in connection with the issuance and distribution of the securities are not currently determinable. The amounts shown are estimates of expenses payable by us in connection with the filing of this registration statement and one offering of securities hereunder, but do not limit the amount of securities that may be offered.

Item 15. Indemnification of Directors and Officers.

The Registrant is a Florida corporation. The following summary is qualified in its entirety by reference to the complete text of the Florida Business Corporation Act (the "FBCA"), the Registrant's Articles of Incorporation, as amended, and the Registrant's Bylaws, as amended.

Under Section 607.0850(1) of the FBCA, a corporation may indemnify any of its directors and officers 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 (including any appeal thereof) (i) if such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and (ii) with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. In actions brought by or in the right of the corporation, however, Section 607.0850(2) provides that no indemnification shall be made in respect of any claim, issue or matter as to which the director or officer shall have been adjudged to be liable unless, and only to the extent that, the court in which such proceeding was brought, or any other court of competent jurisdiction, shall determine upon application that, despite the adjudication of liability but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper. Registrant's Articles of Incorporation, as amended and Bylaws, as amended state that each person who is or was a director or officer shall be indemnified by the Registrant against those expenses (including attorneys' fees), judgments, fines, penalties and amounts paid in settlement which are allowed to be paid or reimbursed by the Registrant under the laws of the State of Florida and which are actually and reasonably incurred in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, in which such person may be involved by reason of his being or having been a director or officer. The indemnification provided in Registrant's Articles of Incorporation, as amended shall not be deemed to limit the right of Registrant to indem

The Registrant has purchased insurance to insure (i) the Registrant's directors and officers against damages from actions and claims incurred in the course of their duties, and (ii) the Registrant against expenses incurred in defending lawsuits arising from certain alleged acts of its directors and officers.

The Registrant has entered into indemnification agreements with each of its directors and executive officers. Pursuant to such agreements, the Registrant shall indemnify each Indemnitee whenever he or she is or was a party or is threatened to be made a party to any proceeding, including without limitation any such proceeding brought by or in the right of the Registrant, because he or she is or was a director or officer of the Registrant or is or was serving at the request of the Registrant as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or because of anything done or not done by the Indemnitee in such capacity, against expenses and liabilities (including the costs of any investigation, defense, settlement or appeal) actually and reasonably incurred by the Indemnitee or on his or her behalf in connection with such proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that an Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Registrant, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful. Unless a determination has been made that the Indemnitee is not entitled to indemnification pursuant to the agreement, all reasonable expenses incurred by or on behalf of such Indemnitee shall be advanced from time to time by the Registrant to the Indemnitee within thirty (30) days after the Registrant's receipt of a written request for an advance of expenses by such Indemnitee, whether prior to or after final disposition of a proceeding. To the extent required by the FBCA, Indemnitee shall agree, at the time of such advance, to repay the amounts advanced if it is finally determined by a court of competent jurisdiction that Indemnitee is not entitled under the terms of the agreement, or applicable law to indemnification with respect to such expenses. Any advances made shall be unsecured and no interest shall be charged thereon.

Item 16. Exhibits.

See the Exhibit Index which is incorporated herein by reference.

Item 17. Undertakings.

The undersigned registrant 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 of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the 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 the 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 20 percent 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 the registration statement or any material change to such information in the registration statement;
 - provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above 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 registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - 1. Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424:
 - 2. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - 3. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - 4. Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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 of 1933 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 Act and is, therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant 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 registrant 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 Act and will be governed by the final adjudication of such issue.
- (8) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S–3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in Marietta, Georgia, on July 3, 2013.

MIMEDX GROUP, INC.

By: /s/ Parker H. Petit

Name: Parker H. Petit

Title: Chairman of the Board of Directors and Chief Executive Officer

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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Parker H. Petit and Michael J. Senken, and each or any one of them, 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 sign any and all additional registration statements relating to the Registration Statement and filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney—in—fact and agent or his substitute or substitutes, 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 or she might or could do in person, hereby ratifying and confirming all that said attorney—in—fact and agent or his substitute or substitutes, 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 below by the following persons in the capacities and on the dates indicated.

Signature / Name	Title	Date
/s/ Parker H. Petit Parker H. Petit	Chief Executive Officer, Chairman of the Board of Directors (principal executive officer)	July 3, 2013
/s/ Michael J. Senken Michael J. Senken	Chief Financial Officer (principal financial and accounting officer)	July 3, 2013
/s/ Joseph G. Bleser Joseph G. Bleser	Director	July 3, 2013
/s/ J. Terry Dewberry J. Terry Dewberry	Director	July 3, 2013
/s/ Charles R. Evans Charles R. Evans	Director	July 3, 2013
/s/ Bruce Hack Bruce Hack	Director	July 3, 2013
/s/ Charles E. Koob Charles E. Koob	Director	July 3, 2013
/s/ Larry W. Papasan Larry W. Papasan	Director	July 3, 2013
/s/ William C. Taylor William C. Taylor	Director, President and Chief Operating Officer	July 3, 2013
/s/ Neil S. Yeston Neil S. Yeston	Director	July 3, 2013
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EXHIBIT INDEX

Exhibit	
<u>Number</u>	Description of the Document
1.1*	Form of Underwriting Agreement.
4.1*	Specimen Preferred Stock Certificate and Form of Certificate of Designation, Preferences and Rights with respect to any series of Preferred Stock issued hereunder.
4.5*	Form of Warrant Agreement (including form of Warrant Certificate).
<u>5.1</u> **	Opinion of Womble Carlyle Sandridge & Rice, LLP.
<u>23.1</u> **	Consent of Cherry Bekaert LLP.
23.3**	Consent of Womble Carlyle Sandridge & Rice, LLP (included in Exhibit 5.1).
24.1**	Power of Attorney (included on the signature page hereto).

- * To be filed by amendment to the Registration Statement or incorporated by reference from documents filed or to be filed with the SEC under the Securities Exchange Act of 1934, as amended.
- ** Filed herewith.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" in the prospectus, which is referred to and made part of this Registration Statement (Form S-3) of MiMedx Group, Inc. for the registration of common stock, preferred stock, and warrants and to the incorporation by reference therein of our report dated March 15, 2013, with respect to the consolidated financial statements of MiMedx Group, Inc. included in its Annual Report on Form 10-K for the year ended December 31, 2012, filed with the Securities and Exchange Commission.

/s/ Cherry Bekaert LLP

Atlanta, Georgia July 3, 2013



A LIMITED

271 17th Street, NW Suite 2400 Atlanta, GA 30363-1017

Telephone: (404) 872-7000 Fax: (404) 888-7490 Web site: www.wcsr.com

July 3, 2013

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

RE: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to MiMedx Group, Inc., a Florida corporation (the "Company"), in connection with the filing of the Company's above-referenced registration statement on Form S-3 (the "Registration Statement") under the Securities Act of 1933, as amended (the "1933 Act"), filed by the Company with the Securities and Exchange Commission (the "Commission") pertaining to the registration of up to \$100,500,000 in aggregate offering prices of securities to be offered by the Company from time to time, and up to 7,500,000 shares of Common Stock, \$0.001 par value, to be offered by selling shareholders from time to time. The Registration Statement relates to the proposed offer and sale by the Company of the following securities: (a) shares of common stock, \$0.001 par value per share (the "Common Stock"); (c) one or more series of shares of preferred stock, par value \$0.001 per share (the "Preferred Stock"); and (d) warrants to purchase Preferred stock, or Common Stock (the "Warrants" and collectively, along with the Common Stock and the Preferred Stock, the "Securities"). The Registration Statement provides that if so indicated in a prospectus supplement, the Preferred Stock may be convertible or exchangeable into other securities or property, including Common Stock.

This opinion is delivered to you pursuant to Item 16 of Form S-3 and Item 601(b) (5) of Regulation S-K of the Commission. This opinion is being furnished in accordance 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, the prospectus or any prospectus supplement other than as expressly stated herein with respect to the issuance of the Securities.

As the Company's counsel, we have examined originals or copies, certified or otherwise identified to our satisfaction, of the Company's Articles of Incorporation and Bylaws, each as amended to date, and minutes and records of the corporate proceedings of the Company relating to the filing of the Registration Statement and the issuance of the Securities, as provided to us by the Company, certificates of public officials and of representatives of the Company, and statutes and other instruments and documents, as a basis for the opinions hereinafter expressed. In rendering this opinion, we have relied upon certificates of public officials and representatives of the Company with respect to the accuracy of the factual matters contained in such certificates.

In connection with such examination, we have assumed (a) the genuineness of all signatures and the legal capacity of all signatories; (b) the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as certified or photostatic copies; (c) that any Warrant Agreement (as such term is defined in this opinion letter) constitutes the enforceable obligation of the parties thereto other than the Company; (d) that the Company will have sufficient authorized capital stock to effect the issuance of any of the Common Stock or Preferred Stock at the time of issuance; (e) the proper issuance and accuracy of certificates of public officials and representatives of the Company; (f) that the Company will continue to be incorporated and in good standing under the laws of the State of Florida; and (g) that the Company will receive consideration for the issuance of the Common Stock and the Preferred Stock in each case that is at least equal to (i) the par value of such Common Stock or Preferred Stock, and (ii) the amount of consideration specified in the resolutions of the Board of Directors of the Company relating to the sale of such Common Stock or Preferred Stock.

Based on and subject to the foregoing, and subject to completion of all corporate action required to be taken by the Company to authorize each proposed issuance of Securities (including the due reservation of any shares of Common Stock or Preferred Stock upon conversion or exchange of any other Securities), and having regard for such legal considerations as we deem relevant, it is our opinion that:

- 1. With respect to Common Stock, when the shares of Common Stock are authorized by all requisite actions on the part of the Company and issued and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement against the receipt of requisite consideration therefor provided for therein, such shares of Common Stock will be validly issued, fully paid and nonassessable.
- 2. With respect to Preferred Stock, when (a) a series of Preferred Sock has been duly established in accordance with the Company's Articles of Incorporation and authorized by all requisite actions on the part of the Company, and (b) the shares of Preferred Stock have been issued and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement against the receipt of requisite consideration therefor provided for therein, the shares of Preferred Stock will be validly issued, fully paid and nonassessable.

- 3. With respect to Common Stock to be issued upon conversion of the Preferred Stock, when (a) if applicable, a series of Preferred Stock has been duly established in accordance with the Company's Articles of Incorporation and authorized by all requisite actions as part of the Company, and (b) such Common Stock has been issued and delivered in accordance with the terms of the applicable Preferred Stock, as the case may be, such shares of Common Stock will be validly issued, fully paid and nonassessable.
- 4. With respect to the Warrants, when (a) a warrant agreement relating to the Warrants (the "Warrant Agreement") has been duly authorized and validly executed and delivered by the Company and each party thereto, (b) the terms of the Warrants have been established in accordance with the Warrant Agreement, and (c) the Warrants have been executed and delivered in accordance with the related Warrant Agreement and the applicable definitive purchase, underwriting or similar agreement against the receipt of requisite consideration therefor provided therein, the Warrants will be legal, valid and binding obligations of the Company.

The opinion set forth in paragraph 3 is subject to (a) the effect of any bankruptcy, insolvency, reorganization, moratorium, arrangement or similar laws affecting the rights and remedies of creditors' generally, including the effect of statutory or other laws regarding fraudulent transfers or preferential transfers, and (b) general principles of equity, including concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of the specific performance, injunctive relief or other equitable remedies regardless of whether enforceability is considered in a proceeding in equity or at law. We express no opinion regarding the effectiveness of (i) any waiver of stay, extension or usury laws or of unknown future rights; or (ii) provisions relating to indemnification, exculpation or contribution, to the extent such provisions may be held unenforceable as contrary to federal or state securities laws.

This opinion is limited to the laws of the State of Georgia and the Florida Business Corporation Law, in each case as currently in effect, and we are expressing no opinion as to the effect of the laws of any other jurisdiction.

This opinion is rendered as of the date hereof, and we undertake no obligation to advise you of any changes in applicable law or any other matters that may come to our attention after the date hereof.

MiMedx Group, Inc. July 3, 2013 Page 4

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to any reference to the name of our firm in the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the 1933 Act or the rules and regulations of the Commission thereunder.

Very truly yours,

WOMBLE CARLYLE SANDRIDGE &

RICE

A Limited Liability Partnership