Registration No. 333-45772

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

AMENDMENT NO. 2 TO
FORM S-3
REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

MYRIAD GENETICS, INC. (Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

> 87-0494517 (I.R.S. Employer Identification Number)

320 Wakara Way Salt Lake City, UT 84108 (801) 584-3600

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

Peter D. Meldrum

President and Chief Executive Officer
Myriad Genetics, Inc.
320 Wakara Way

Salt Lake City, UT 84108
(801) 584-3600

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

With a copy to:
Andrew J. Merken, Esquire
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, Massachusetts 02111
(617) 542-6000

Approximate date of commencement of proposed sale to the public: As soon as practical 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. $[\]$

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, check the following box. [X]

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. [

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 delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. $[\]$

CALCULATION OF REGISTRATION FEE

| Common Stock, \$0.01 par value | 350.000 | \$64.4688 | \$22.564.080 | \$5.957 |
|--------------------------------|----------------|------------------|--------------------|----------------------|
| REGIOTERES | | | | |
| REGISTERED | REGISTERED (1) | PER SHARE (2) | PRICE (2) | REGISTRATION FEE (3) |
| OF SECURITIES TO BE | AMOUNT TO BE | OFFERING PRICE | AGGREGATE OFFERING | AMOUNT OF |
| TITLE OF EACH CLASS | | PROPOSED MAXIMUM | PROPOSED MAXIMUM | |

- (1) Includes an indeterminate number of shares of common stock as may from time to time be issued by reason of stock splits, stock dividends and other similar transactions, which shares are registered hereunder pursuant to Rule 416.
- (2) The price of \$64.4688 per share, which was the average of the high and low prices of the common stock reported by the Nasdaq Stock Market on September 11, 2000, is set forth solely for the purpose of calculating the registration fee in accordance with Rule 457(c) of the Securities Act of 1933, as amended.
- (3) Previously paid to the Securities and Exchange Commission.

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 Commission, acting pursuant to said Section 8(a), may determine.

PROSPECTUS

Subject to Completion dated November 15, 2000 ${\sf MYRIAD}$ GENETICS, INC.

350,000 SHARES OF COMMON STOCK

This prospectus covers the sale by Acqua Wellington North American Equities Fund, Ltd. of 350,000 shares of common stock.

We will not receive any of the proceeds from the sale of common stock by the selling stockholder.

Our common stock is listed on the Nasdaq National Market under the symbol "MYGN." On October 25, the closing sale price of our common stock on the Nasdaq National Market was \$116.094 per share.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 3.

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

______, 2000

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You may rely only on the information contained in this prospectus. We have not authorized anyone to provide information different from that contained in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is correct only as of the date of this prospectus, regardless of the time of the delivery of this prospectus or any sale of these securities.

PROSPECTUS SUMMARY

You must also consult the more detailed financial statements, and notes to financial statements, incorporated by reference in this prospectus. This prospectus contains forward-looking statements and actual results could differ materially from those projected in the forward-looking statements as a result of certain of the risk factors as outlined in this prospectus.

The Company

We are a leader in the use of gene-based medicine to develop novel therapeutic and molecular diagnostic products. We are focused on the emerging field of proteomics, which involves establishing the relationship between protein function and particular diseases by identifying disease-specific proteins. We employ a variety of proprietary proteomic technologies to discover important disease genes and to understand the role these genes and their related proteins play in the onset and progression of disease. We have integrated these technologies using powerful bioinformatics and robotics systems to conduct our research efforts on a high-throughput basis. This integrated proteomics platform has enabled us to identify numerous proteins as promising targets for new proprietary drugs and molecular diagnostic tests.

Using our proprietary technologies, we have identified 22 drug targets to date. We have delivered 13 of these drug targets to our strategic partners based on our discovery of genes involved in breast cancer, brain cancer, prostate cancer, heart disease, dementia and other disorders. We have received total payments from our seven current strategic partners in excess of \$100 million. We will receive additional milestone and royalty payments if our strategic partners develop and commercialize drugs from the thirteen targets we have delivered to them. Our current partners include Bayer Corporation, Eli Lilly and Company, Hitachi Ltd., Hoffmann-LaRoche Inc., Pharmacia Corporation, Novartis Corporation, Schering-Plough Corporation and Schering AG. We have also established a portfolio of nine new drug targets that we have retained for our own small molecule drug development program. We expect to independently develop, test and commercialize small molecule therapeutics from drug targets selected from our internal portfolio, particularly in the area of cancer. Outside of the oncology area, we expect to enter into future strategic partnerships for the clinical development of many of these targets.

We also focus on developing, marketing and selling molecular diagnostic products for predictive medicine and personalized medicine. We have developed and commercialized two innovative molecular diagnostic tests, one of which is used for analyzing breast and ovarian cancer susceptibility and the other for therapeutic management of hypertensive patients. In August 2000, we announced the future launch of a predictive medicine test for hereditary colon cancer and uterine cancer. Revenues from these proprietary tests grew approximately 70% from the prior year to \$8.8 million in the fiscal year ended June 30, 2000.

Our business strategy is to understand the relationship between proteins and diseases in order to develop the next generation of therapeutic and molecular diagnostic products and includes the following key elements:

- Expand our proprietary proteomic databases. We will continue to expand our existing proprietary genetic and medical databases in Utah and Quebec, which accelerate our protein discovery efforts and are useful in target validation, pharmacogenomics and disease association studies.
- Discover important disease genes, understand their function and identify lead compounds. We will expand ProNet(R), our proprietary proteomic database, which is used to discover disease pathways, understand protein function and identify high quality drug targets. We will also continue to employ our ProTrap technology for high-throughput screening for lead compound identification.
- . Selectively develop and commercialize therapeutic products. We intend to take selected compounds, particularly in the area of cancer, through the clinical development process. We are focusing on cancer due to the large unmet need for effective, less toxic drugs, the potential for fast track status that the FDA has typically afforded novel cancer drugs and our ability to leverage the expertise of our existing oncology sales force.
- Capitalize on our strategic alliances with major pharmaceutical companies. We expect to maintain and expand our strategic alliances. As we identify and develop lead compounds, we plan to enter into strategic

alliances with major pharmaceutical companies to diversify the risk of clinical stage drug development and to benefit from our potential partners' development expertise and marketing strength.

Grow and expand our molecular diagnostic business. We will continue to increase the domestic and foreign market penetration of our existing molecular diagnostic tests and create additional tests to capitalize on the emergence of predictive and personalized medicine.

We are a Delaware corporation. Our principal executive offices are located at 320 Wakara Way, Salt Lake City, Utah 84108. Our telephone number is (801) 584-3600. Our website is http://www.myriad.com. The information found on our website is not intended to be a part of this prospectus.

RISK FACTORS

You should carefully consider the following risk factors and all other information contained in this prospectus before purchasing our common stock. Investing in our common stock involves a high degree of risk. If any of the following risks actually occurs, we may not be able to conduct our business as currently planned and our financial condition and operating results could be seriously harmed. In that case, the market price of our common stock could decline, and you could lose all or part of your investment. See "Special Note Regarding Forward-Looking Statements."

We are a company in the early stages of development and commercialization and may never achieve the goals of our business plan.

We may be unable to continue to successfully develop or commercialize our technologies. Our technologies are still in the early stages of development and we have only recently begun to incorporate them into commercialized products.

We began operations in 1991 and have been engaged primarily in research directed toward the discovery and sequencing of genes that predispose people to common diseases and the development of molecular diagnostic tests and therapeutic products. In October 1996 we introduced for commercial use BRACAnalysis(R), our first diagnostic test. In January 1998 we introduced for commercial use CardiaRisk(R), our second diagnostic test. In August 2000, we announced the launch of COLARISO(TM), our most recent diagnostic test to be introduced.

We are beginning early stage preclinical development of therapeutic products for cancer and have delivered several drug targets to our collaborators for further development by them. Any therapeutic products under development by us or our collaborators will take several more years to develop and undergo extensive preclinical and clinical testing. Additionally, therapeutic products are subject to substantial regulatory review. We or any of our collaborators may be unable to discover or develop any therapeutic or additional diagnostic products through the utilization of our technologies. Even if we or our collaborators develop products for commercial use, we or they may not, however, be able to develop products that:

- . meet applicable regulatory standards, in a timely manner or at all;
- . successfully compete with other technologies and products;
- . avoid infringing the proprietary rights of others;
- . are manufacturable in sufficient quantities or at reasonable cost; or
- . are successfully marketed.

We have a history of operating losses and expect to continue to incur losses in the future.

We have a limited operating history and have experienced operating losses since our inception. We expect these losses to continue for the next several years and we may never be profitable or achieve significant revenues. For example, we experienced net losses of \$8,722,102 during the year ended June 30, 2000, \$9,995,453 during the year ended June 30, 1999 and \$9,797,035 during the year ended June 30, 1998. We had an accumulated deficit of \$52,661,982 as of June 30, 2000. In order to develop and commercialize our technologies, we expect to incur significant increases in our expenses over the next several years. In addition, we expect significant increases in expenses in connection with our internal research programs and any therapeutic product that we independenty seek to develop, test and commercialize. As a result, we expect to incur operating losses at least for the foreseeable future. Our ability to achieve significant revenues or profitability will depend upon numerous factors, including, our ability to:

. obtain and maintain strategic collaborations;

- . identify drug targets and lead compounds that may lead to future therapeutic products; and
- . create and introduce additional marketable molecular diagnostic tests.

If we or our collaborative partners are unable to overcome financial and regulatory obstacles, including those that arise in connection with new technologies, then we may never be able to develop commercially viable therapeutic products.

We are currently initiating the development of potential therapeutic products, which will require significant research and development expenditures, extensive preclinical and clinical testing and regulatory approvals. Preclinical and clinical testing will require the expenditure of significant funds. Even after spending significant funds, we may not be able to develop or successfully commercialize any potential therapeutic products.

Therapeutic products that we or our collaborative partners may develop will be subject to the risks of failure inherent in the development of therapeutic products based on new technologies. These risks include the possibilities that:

- potential therapeutic products will be found to be unsafe or ineffective or otherwise fail to receive necessary regulatory clearances;
- the products, if safe and effective, will be difficult to manufacture on a large scale or uneconomical to market;
- proprietary rights of third parties will preclude us or our partners from marketing our products; or
- . third parties will market superior or equivalent products.

In addition, before receiving all required FDA approvals to market any product, we or our partners will have to demonstrate that the product is safe and effective on the patient population and for the diseases that would be treated. The clinical testing, manufacturing and marketing of products are subject to the rigorous testing and approval process of the FDA and equivalent foreign regulatory authorities, which can take many years and requires the expenditure of substantial financial and other resources. We or our collaborative partners may never obtain regulatory approvals for any products that we develop. Moreover, if regulatory approval of a product is granted, this approval may impose limitations on the indicated uses for which it may be marketed. Further, even if such regulatory approval is obtained, a marketed product and its manufacturer are subject to continuing review, and the discovery of previously unknown problems with a product or manufacturer may result in restrictions on such product or manufacturer, including withdrawal of the product from the market.

Clinical trials or marketing of any potential therapeutic products may expose us to liability claims from the use of these therapeutic products. We may not be able to obtain product liability insurance or, if obtained, sufficient coverage may not be available at a reasonable cost. In addition, as we develop therapeutic products internally, we will have to make significant investments in therapeutic product development, marketing, sales and regulatory compliance resources. We will also have to establish or contract for the manufacture of products, including supplies of drugs used in clinical trials, under the current good manufacturing practices of the FDA, which can be time consuming and costly.

If we are unable to maintain relationships with current collaborative partners or enter into new collaborative arrangements, then our business will be harmed.

We currently depend heavily and will depend heavily in the future on third parties for support in product development, manufacturing, marketing and distribution. Part of our current business strategy is to form collaborative arrangements with strategic partners to develop and commercialize therapeutic products based on our gene discoveries. We may not be able to maintain our current collaborative arrangements or negotiate additional

acceptable collaborative arrangements in the future.

The research phase of our collaborations expire after a fixed term. In particular, the research phase of our collaborations with Schering-Plough Corporation and with Novartis Corporation each ended successfully in April 2000. Any current or future collaborative arrangement may not be successful. Failure of any collaborative arrangement, or termination by any of our collaborative partners of their respective agreements, could have a material adverse effect on our business. Further, additional milestone payments and future potential royalty payments from our collaborators are dependent upon their continuing to develop products based on the potential therapeutic targets we delivered to them. These partners may decide not to develop any products based on these targets. Even if these partners commence such development, they could decide to terminate it at any time.

In addition, our collaborative partners may pursue alternative technologies or develop alternative products either on their own or in collaboration with others, including our competitors, as a means of developing diagnostic products or treatments for the diseases targeted by the collaborative programs. Our interests may not continue to coincide with those of our collaborative partners, and some of our collaborative partners may develop, independently or with third parties, therapeutic or diagnostic products that could compete with those developed in collaboration with our partners or independently. Additionally, disputes over rights or technology or other proprietary interests may arise. Such disputes or disagreements between us and our collaborative partners could lead to delays in collaborative research projects, or could result in litigation or arbitration, any of which could have a material adverse effect on our business. In addition, there have been a significant number of recent consolidations among pharmaceutical companies. These consolidations among the companies with which we are collaborating could result in the diminution or termination of, or delays in, the development or commercialization of the products or research programs under one or more of our collaborative agreements.

BRACAnalysis(R), CardiaRisk(R), COLARIS(TM) and any other molecular diagnostic tests or therapeutic products that we may develop may never achieve significant commercial market acceptance.

We may not succeed in achieving significant commercial market acceptance of any of our products. While we have marketed BRACAnalysis for several years and have gained some acceptance with oncologists and surgeons, we need to convince the larger group of obstetricians/gynecologists and primary care physicians of the benefits of BRACAnalysis in order to increase our sales of the test. We introduced our newer products CardiaRisk in August 1998 and COLARIS in August 2000 and may not succeed in achieving commercial acceptance of either test. Our ability to successfully commercialize BRACAnalysis, CardiaRisk and COLARIS, as well as any other molecular diagnostic tests or therapeutic products that we may develop, will depend on several factors, including:

. Our ability to convince the medical community of the safety and clinical efficacy of our products and their potential advantages over existing therapeutic products and diagnostic techniques.

. The agreement by third-party payors to provide, full or even partial reimbursement coverage for our products, the scope and extent of which will affect patients willingness or ability to pay for our tests and will

likely heavily influence physicians' decisions to recommend our products. To date, no third-party payors have been willing to reimburse patients for CardiaRisk.

. The willingness of physicians and patients to utilize molecular diagnostic tests which are difficult to perform and interpret. This difficulty is caused by a combination of factors, including the large number, sometimes many hundreds, of different mutations in the genes which our tests analyze, the need to characterize each specific mutation, and the ability of our tests to predict only as to a statistical probability, not certainty, that a tested individual will develop the disease for which the test has been completed.

These factors present obstacles to significant commercial acceptance of our tests, which we will have to spend substantial time and money to overcome, if we can do so at all. Our inability to successfully do so will harm our business.

If we do not compete effectively with scientific and commercial competitors, we may not be able to successfully commercialize our products.

Research in the field of genomics and proteomics is intense and highly competitive. This research is characterized by rapid technological change. Our competitors in the United States and abroad are numerous and include, among others, major pharmaceutical and diagnostic companies, biotechnology firms, universities and other research institutions, including those receiving funding from the Human Genome Project. Many of our potential competitors have considerably greater financial, technical, marketing and other resources than we do, which may allow these competitors to discover important genes and determine their function before we do. We could be adversely affected if we do not discover genes, characterize their function, develop therapeutic and diagnostic products based on these discoveries, obtain regulatory and other approvals and launch these products and their related services before our competitors. We also expect to encounter significant competition with respect to any therapeutic or diagnostic products that we may develop or commercialize. Those companies that complete clinical trials, obtain required regulatory approvals and commence commercial sales of therapeutic products before we do may achieve a significant competitive advantage in marketing and commercializing their products. We or our collaborative partners may not be able to develop the apeutic or diagnostic products successfully and may not obtain patents covering these products that provide protection against our competitors. Moreover, our competitors may succeed in developing therapeutic or diagnostic products that circumvent our technologies or products. Or, our competitors may succeed in developing technologies or products that are more effective than those developed by us and our collaborative partners or that would render technology or products of us and our collaborators less competitive or obsolete. We expect competition to intensify in the fields in which we are involved as technical advances in these fields occur and become more widely known.

If our current collaborators or scientific advisors terminate their relationships with us or develop relationships with a competitor, our ability to discover genes and commercialize therapeutic and diagnostic

products could be adversely affected.

We have relationships with collaborators at academic and other institutions who conduct research at our request. These collaborators are not our employees. As a result, we have limited control over their activities and, except as otherwise required by our collaboration agreements, can expect only limited amounts of their time to be dedicated to our activities. We have established collaborations with the University of Utah, Intermountain Health Care, and Galileo Genomics, Inc. to pursue the discovery of genes involved in cancer, cardiovascular disease, obesity, osteoporosis, asthma, and certain central nervous system disorders. Our ability to discover genes involved in human disease and commercialize therapeutic and diagnostic products will depend in part on the continuation of these collaborations. If any of these collaborations are terminated, we may not be able to enter into other acceptable collaborations. In addition, our existing collaborations may not be successful.

Our research collaborators and scientific advisors may have relationships with other commercial entities, some or all of which could compete with us. Our research collaborators and scientific advisors sign agreements which provide for the confidentiality of our proprietary information and the results of studies conducted at our request. We may not, however, be able to maintain the confidentiality of our technology and other confidential information in connection with every collaboration. The dissemination of our confidential information could have a material adverse effect on our business.

The termination of one or more license agreements that are important in our research and development activities would harm our business.

We are a party to various license agreements under which we have rights to use certain technologies owned by other companies in our proprietary research, development and testing processes. One of these agreements, with Roche Molecular Systems, Inc., is of material importance to us and is renewable on an annual basis at the option of both parties. We may not be able to continue to license this technology or, if the license were terminated, find suitable alternatives to this technology on timely or commercially reasonable terms, if at all. The loss of the right to use this technology that we have licensed would harm our business.

If our current operating plan changes and we find that our existing capital resources will not meet our needs, we may find it necessary to raise additional funding , which funding may not be available.

We anticipate that our existing capital resources will enable us to maintain currently planned operations for at least the next two years. However, we base this expectation on our current operating plan, which may change. We have incurred, and will continue to incur, significant costs in the discovery, development and marketing of current and prospective therapeutic and diagnostic products. Our ongoing gene discovery programs and our efforts to develop therapeutic products and molecular diagnostic tests will require substantial cash resources. If, for example, a new disease gene is discovered through these efforts, we would require funds in addition to our current operating plan to develop and launch a new molecular diagnostic product. Additionally, if we discover a new drug target with promising therapeutic properties, we would require funding in addition to our current operating plan to move the candidate drug into preclinical studies and human clinical trials. If, due to changes in our current operating plan, adequate funds are not available, we may be required to raise additional funds. Sources of additional capital resources include, but are not limited to, public or private equity financings, establishing a credit facility, or selling convertible debt securities. This additional funding may not be available to us or, if available, it may not be on reasonable terms.

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Because of our potential long-term capital requirements, we may access the public or private equity markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time. If additional funds are raised by issuing equity securities, existing shareholders may suffer significant dilution.

If we are unable to comply with applicable governmental regulations, we may not be able to continue our operations.

The establishment and operation of our molecular diagnostic laboratory and the production and marketing of services and products developed through our technologies, as well as our ongoing research and development activities, are subject to regulation by numerous federal, state and local governmental authorities in the United States and by comparable regulatory agencies in other countries where we or any collaborative partner might seek to market services and products that may be developed. On the state level, only New York has implemented regulations concerning molecular diagnostic testing and we have been accredited under the Clinical Laboratory Evaluation Program by the Department of Health of the State of New York for BRACAnalysis(R), CardiaRisk(R), and COLARISO. Failure to maintain state regulatory compliance, or changes in state regulatory schemes, could result in a substantial curtailment or even prohibition of Myriad Laboratories' clinical activities and could have a material adverse effect on our business. We have received federal accreditation from the Department of Health and Human Services under the Clinical Laboratory Improvement Amendments, or CLIA, to operate our molecular diagnostic laboratory. However, our accreditation may subsequently be revoked, suspended or limited, or our accreditation may not be renewed on an annual basis as required. Furthermore, while the U.S. Food and Drug Administration has elected not to substantially regulate the activities or diagnostic tests performed by laboratories like our clinical laboratory, the FDA has stated that it has the right to do so, and the FDA may seek to regulate or require clearance or approval of our tests in the future. If the FDA should require that these tests receive FDA approval prior to their use in our laboratory, this approval may not be received on a timely basis, if at all.

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If the FDA decides to regulate molecular diagnostic testing , or if groups such as insurance companies and employers discriminate against individuals with a genetic predisposition to a disease, then demand for our molecular diagnostic tests may decrease.

Molecular diagnostic testing has raised ethical issues regarding confidentiality and the appropriate uses of information provided by this testing. For these reasons, governmental authorities place restrictions on, or regulate the use of, molecular diagnostic testing. Also, it is possible that discrimination by insurance companies against patients shown to have a genetic predisposition to a particular disease could occur through the raising of premiums by insurers to prohibitive levels, outright cancellation of insurance or unwillingness to provide coverage. We could experience a delay in market penetration or a reduction in the size of our potential serviceable market, which would adversely affect future revenue, if insurance discrimination were to become a significant barrier to testing acceptance. Similarly, employers could discriminate against employees with a genetic predisposition to a disease due to the increased risk for disease resulting in possible cost increases for health insurance and the potential for lost employment time. Any of these scenarios could cause us to experience a delay or reduction in test acceptance, which could materially adversely affect our business.

If we are not able to protect our proprietary technology, our business will be harmed and we may not remain competitive.

Our success will depend, in part, on our ability to obtain patent protection, both in the United States and in other countries, for genes we discover, for the function of the protein produced by the genes and related technologies, processes, methods and other inventions that we believe are patentable. Our ability to preserve our trade secrets and other intellectual property is also critical to our long-term success. The patent position of biotechnology firms generally is highly uncertain and involves complex legal and factual questions. To date there has not emerged from the United States Patent and Trademark Office, or PTO, or the courts a consistent policy regarding the breadth of claims allowed in biotechnology patents. Our or our licensors applications may never issue as patents, and the claims of any issued patents may not afford meaningful protection for our technology or products. In addition, any patents issued to us or our licensors may be challenged, and subsequently narrowed, invalidated or circumvented.

Our products may also conflict with patents that have been or may be granted to others. As the biotechnology industry expands and more patent applications are filed and patents are issued, the risk increases that our products may give rise to a declaration of interference by the PTO, or to claims of patent infringement by other companies, institutions or individuals. These entities or persons could bring legal proceedings against us seeking damages or seeking to enjoin us from testing, manufacturing or marketing our products. Patent litigation is costly, and even if we prevail, the cost of such litigation could have a material adverse effect on us. If the other parties in any such actions are successful, in addition to any liability for damages, we could be required to cease the infringing activity or obtain a license. Any license required may not be available to us on acceptable terms, if at all. Our failure to obtain a license to any technology that we may require to commercialize our products could have a material adverse effect on our business. In addition, there is considerable pressure on academic institutions to publish discoveries in the genetic field. Such a publication by an academic collaborator of ours, prior to the filing of a patent application on this discovery, may compromise our ability to obtain U.S. and foreign patent protection for the discovery.

If a third party files a patent application with claims to a gene or protein we have discovered, the PTO may a

declare an interference between competing patent applications. If an interference is declared, we may not prevail in the interference. If the other party prevails in the interference, we may be precluded from commercializing services or products based on the gene or protein, or may be required to seek a license. A license may not be available to us on commercially acceptable terms, if at all.

We also rely upon unpatented proprietary technologies. We may not be able to adequately protect our rights in such unpatented proprietary technologies, which could have a material adverse effect on our business. For example, others may independently develop substantially equivalent proprietary information or techniques or otherwise gain access to our proprietary technologies or disclose our technologies to our competitors.

If we were sued for patent infringement $\,$ by third parties , we might incur significant costs and delays in product introduction.

Our industry includes many organizations seeking to rapidly identify and characterize genes through the use of gene expression analysis and other technologies. To the extent any patents are issued to those organizations on partial or full-length genes or uses for such genes, the risk increases that the sale of our diagnostic products currently being marketed or under development, and any sales of therapeutic drugs developed by us or our collaborators, may give rise to claims of patent infringement. Others may have filed and in the future are likely to file patent applications covering genes or gene products that are similar or identical to our products. Any of these patent applications may have priority over our patent applications. Any legal action against us or our collaborators claiming damages and seeking to enjoin commercial activities relating to the affected products and processes could, in addition to subjecting us to potential liability for damages, require us or our collaborators to obtain a license in order to continue to manufacture or market the affected products and processes or could enjoin us from continuing to manufacture or market the affected products and processes, thereby significantly increasing our costs associated with, and significantly delaying, product introduction and marketing. We or our collaborators may not prevail in any of these actions and any license required under any of these patents may not be available on commercially acceptable terms, if at all. We believe that there may be significant litigation in the industry regarding patent and other intellectual property rights. If we become involved in this litigation, it could consume a substantial portion of our managerial and financial resources.

If we fail to retain our key personnel and hire, train and retain qualified employees and consultants, we may not be able to successfully continue our business.

Because of the specialized scientific nature of our business, we are highly dependent upon our ability to attract and retain qualified management, scientific and technical personnel. We are currently recruiting additional qualified management, scientific and technical personnel. Competition for such personnel is intense. Loss of the services of or failure to recruit additional key management, scientific and technical personnel would adversely affect our research and development programs and molecular diagnostic testing and information business and may have a material adverse effect on our business.

Our agreements with our employees generally provide for employment that can be terminated by either party without cause at any time, subject to specified notice requirements. Further, the non-competition provision to which each employee is subject expires on the applicable date of termination of employment.

We depend on a limited number of third parties for some of our supplies of equipment and reagents. If these supplies become unavailable, then we may not be able to successfully perform our research or operate our business at all or on a timely basis.

We currently rely on two suppliers to provide our gene sequencing machines and reagents required in connection with our research. We believe that currently there are limited alternative suppliers of gene sequencing machines and reagents. The gene sequencing machines or the reagents may not remain available in commercial quantities at acceptable costs. If we are unable to obtain when needed additional gene sequencing machines or an adequate supply of reagents or other ingredients at commercially reasonable rates, our ability to continue to identify genes and perform molecular diagnostic testing would be adversely affected.

If we were successfully sued for product liability, we could face substantial liabilities that exceed our resources.

Our business exposes us to potential liability risks inherent in the testing, marketing and processing of molecular diagnostic products, including possible misdiagnoses. Although we are insured against such risks up to a \$13,000,000 annual aggregate limit in connection with the use of our products, our present product liability insurance may be inadequate. A successful product liability claim in excess of our insurance coverage could have a material adverse effect on our business. Any successful product liability claim may prevent us from obtaining adequate product liability insurance in the future on commercially desirable or reasonable terms. An inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of our products. Our business also may expose us to liability inherent in the testing, manufacturing and marketing of prospective therapeutic products. Liability claims may be asserted against us. We have obtained product liability and other related insurance, but we may not be able to maintain this insurance on acceptable terms.

Our business involves environmental risks that may result in liability for us.\\2\\

In connection with our research and development activities, we are subject to federal, state and local laws, rules, regulations and policies governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain materials, biological specimens and wastes. Although we believe that we have complied with the applicable laws, regulations and policies in all material respects and have not been required to correct any material noncompliance, we may be required to incur significant costs to comply with environmental and health and safety regulations in the future. Although we believe that our safety procedures for handling and disposing of controlled materials comply with the standards prescribed by state and federal regulations, accidental contamination or injury from these materials may occur. In the event of such an occurrence, we could be held liable for any damages that result and any such liability could exceed our resources.

Our stock price is highly volatile and our stock may lose all or a significant part of its value after this offering. $\$

The market prices for securities of biotechnology and genomic companies have been volatile. This volatility has significantly affected the market prices for these securities for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of our common stock. The market price for our common stock has fluctuated significantly since public trading commenced in October 1995, and it is likely that the market price will continue to fluctuate in the future. In addition, the stock market has experienced extreme price and volume fluctuations. Events or factors that may have a significant impact on our business and on the market price of our common stock include the following:

- . quarterly fluctuations in operating results;
- announcements by us, our collaborative partners or our present or potential competitors;
- . technological innovations or new commercial products or services;
- . regulatory approval developments;
- . developments or disputes concerning patent or proprietary rights; or
- public concern regarding the safety, efficacy or other implications of the products or services developed or to be developed by us or our collaborators.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and within the meaning of Section 21E of the Securiries Exchange Act of 1934. We have based these forward-looking statements on our current expectations and projections about future events. These forward-looking statements include, but are not limited to, statements concerning payments to be received under agreements with our collaborative partners, as well as our plans to:

- . continue development of our current products under development;
- . conduct clinical trials with respect to our products under development;
- utilize our capital resources and the net proceeds from this offering and the time periods related thereto;
- engage third-party manufacturers to supply our clinical trials and commercial requirements;
- seek regulatory approvals;
- establish a marketing and distribution capability for future therapeutic products that we independently develop; and
- evaluate additional products under development for subsequent clinical and commercial development.

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates" and similar expressions. These statements are based on our current beliefs, expectations and assumptions and are subject to a number of risks and uncertainties. Actual results and events may vary significantly from those discussed in the forward-looking statements. A description of certain risks that could cause our results to vary appears under the caption "Risk Factors" and elsewhere in this prospectus. These forward-looking statements are made as of the date of this prospectus. In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus might not occur.

TRADEMARKS

 $\label{eq:main_section} Myriad(R), \ our \ graphical \ logo \ device, \ BRACAnalysis(R), \ CardiaRisk(R), \ ProNet(R), \ ProTrap(TM), \ and \ COLARIS(TM) \ are \ trademarks \ of \ Myriad \ Genetics, \ Inc. \ Other \ trademarks \ used \ in \ this \ prospectus \ are \ the \ property \ of \ their \ respective \ owners. \ The \ domain \ names \ and \ website \ addresses \ "www.myriad.com" \ and \ "www.myriad-pronet.com," \ and \ all \ rights \ thereto, \ are \ registered \ in \ the \ name \ of \ and \ owned \ by \ Myriad \ Genetics, \ Inc. \$

SELLING STOCKHOLDER

The common stock offered in this prospectus was issued by us to the selling stockholder in a transaction exempt from the registration requirements of the Securities Act. The selling stockholder, including its transferees, pledgees or donees or their successors, may from time to time offer and sell any or all of the common stock.

The selling stockholder has represented to us that it purchased the common stock for its own account for investment only and not with a view toward selling or distributing the shares, except through sales registered under the Securities Act or exemptions. We agreed with the selling stockholder to file this registration statement to register the resale of the common stock. We agreed to prepare and file all necessary amendments and supplements to the registration statement to keep it effective until August 29, 2002.

The following table shows information, as of October 24, 2000, with respect to the selling stockholder and the principal amounts of our common stock it beneficially owns and the number of shares that may be offered under this prospectus. The information is based on information provided by or on behalf of the selling stockholder.

The selling stockholder may offer all, some or none of the common stock. Thus, we cannot estimate the amount of the common stock that will be held by the selling stockholder upon termination of any sales. The selling stockholder has not had any material relationship with us or our affiliates within the past three years.

| | SHARES OWNED PRIOR TO | SHA | MUM NUMBER OF RES OFFERED | SHARES OWN COMPLETION OFFERIN | OF THE G (3) |
|--|-----------------------|-------------|------------------------------|-------------------------------------|-----------------|
| NAME OF SELLING STOCKHOLDER | NUMBER | PERCENT (2) | | NUMBER | PERCENT |
| Acqua Wellington North American Equities Fund, Ltd. (1 | l) 350,000 | 1.6% | 350,000 | 0 | - |

- (1) Mr. Anthony L.M. Inder Rieden, a Director of Acqua Wellington North American Equities Fund, Ltd., has voting and investment power over the shares.
- (2) Percentage of ownership prior to the offering is based on 22,332,089 shares of common stock outstanding on October $24,\ 2000.$
- (3) Number of shares and percentage after completion of the offering assumes that all of the shares held by the selling stockholder and being offered under this prospectus are sold, that the shares are sold to unaffiliated third parties and that the selling stockholder acquires no additional shares of common stock before completion of this offering.

PLAN OF DISTRIBUTION

We are registering the shares of common stock on behalf of the selling stockholder. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market prices, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected at various times in one or more of the following transactions, or in other kinds of transactions:

- . transactions on the Nasdaq National Market or on any national securities exchange or U.S. inter-dealer system of a registered national securities association on which our common stock may be listed or quoted at the time of sale;
- . in the over-the-counter market;
- . in private transactions and transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- . in connection with short sales of the shares;
- . by pledge to secure debt and other obligations;
- . through the writing of options, whether the options are listed on an options exchange or otherwise;
- . in connection with the writing of non-traded and exchange-traded call options, in hedge transactions and in settlement of other transactions in standardized or over-the-counter options; or
- . through a combination of any of the above transactions.

The selling stockholder and its successors, including its transferees, pledgees or donees or their successors, may sell the common stock directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholder or the purchasers. These discounts, concessions or commissions as to any particular underwriter, broker-dealer or agent may be in excess of those customary in the types of transactions involved.

In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 of the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

We entered into a registration rights agreement for the benefit of the selling stockholder to register our common stock under applicable federal and state securities laws. The registration rights agreement provides for cross-indemnification of the selling stockholder and us and our respective directors, officers and controlling persons against specific liabilities in connection with the offer and sale of the common stock, including liabilities under the Securities Act. We will pay substantially all of the expenses incurred by the selling stockholder incident to the offering and sale of the common stock.

LEGAL MATTERS

The validity of the shares of common stock offered in this prospectus will be passed upon for Myriad Genetics, Inc. by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. of Boston, Massachusetts. Certain attorneys at Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. beneficially own an aggregate of 2,000 shares of common stock of Myriad Genetics, Inc.

EXPERTS

The consolidated financial statements of Myriad Genetics, Inc. as of June 30, 2000 and 1999 and for each of the years in the three-year period ended June 30, 2000 have been incorporated by reference herein and in the registration statement in reliance on the report of KPMG LLP, independent certified public accountants, incorporated by reference herein, and upon the authority of said firm, as experts in accounting and auditing.

WHERE TO FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, or SEC. You may read and copy any document we file a the public reference facilities of the SEC located at 450 Fifth Street, N.W., Washington, D.C. 20549. You may obtain information on the operation of the SEC's public reference facilities by calling the SEC at 1-800-SEC-0330. You can also access copies of such material electronically on the SEC's home page on the World Wide Web at http://www.sec.gov. Reports, proxy statements and other information concerning us is also available for inspection at the National Association of Securties Dealers, Inc. at 1835 K Street, N.W., Washington, D.C., 20006.

This prospectus is only part of a Registration Statement on Form S-3 that we have filed with the SEC under the Securities Act and therefore omits certain information contained in the Registration Statement. We have also filed exhibits and schedules with the Registration Statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the Registration Statement, including the exhibits and schedules, without charge at the public reference room, or obtain a copy from the SEC upon payment of the fee prescribed by the SEC. You may also view the Registration Statement, including the exhibits and schedules, on the SEC's web site at www.sec.gov.

INCORPORATION OF DOCUMENTS BY REFERENCE

This prospectus is part of a Registration Statement on Form S-3 that we have filed with the SEC. The SEC permits us to "incorporate by reference" the information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file with the SEC after the date of this prospectus will automatically update and supersede this information. We incorporate by reference the following documents filed by us with the SEC (File No. 0-26642). We also incorporate by reference any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securties Exchange Act of 1934, after the date of this prospectus until the termination of this offering.

- Amendment No.1 to Form 10-K on Form 10-K/A for the year ended June 30, 2000 filed November 15, 2000;
- Annual Report on Form 10-K for the year ended June 30, 2000 filed on September 13, 2000;
- Quarterly Report on Form 10-Q for the quarter ended September 30, 2000 filed on November 14, 2000;
- Definitive Proxy Statement for Special Meeting of Stockholders, filed on July 27, 2000;
- Definitive Proxy Statement for Annual Meeting of Stockholders, filed on November 15, 1999; and
- The description of the common stock contained in our Registration Statement on Form 8-A filed with the SEC on August 17, 1995 including any amendments or reports filed for the purpose of updating such description.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the Company's estimates (other than the SEC registration fee) of the expenses in connection with the issuance and distribution of the shares of common stock being registered. None of the following expenses are being paid by the selling stockholder.

| Item | Amount |
|----------------------|--|
| | |
| SEC registration fee | \$ 5,957 \$ 2,500 \$25,000 \$ 4,500 \$ 2,043 |
| Total | \$40,000 ===== |
| | |

Section 145(a) of the General Corporation Law of the State of Delaware provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no cause to believe his conduct was unlawful.

Section 145(b) provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted under similar standards, except that no indemnification may be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the court in which such action or suit was brought shall determine that despite the adjudication of liability, such person is fairly and reasonably entitled to be indemnified for such expenses which the court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful in the defense of any action, suit or proceeding referred to in subsections (a) and (b) or in the defense of any claim, issue or matter therein, he shall be indemnified against expenses actually and reasonably incurred by him in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and that the corporation may purchase and maintain insurance on behalf of a director or officer of the corporation against any liability asserted against him or incurred by him in any such capacity or arising out of his status as such whether or not the corporation would have the power to indemnify him against such liabilities under such Section 145.

The Restated Certificate of Incorporation, as amended, and Restated By-laws of the Company provide for indemnification of the Company's directors and officers to the fullest extent permitted by law. The Restated Certificate of Incorporation, as amended, and the Restated By-laws also permit the Board of Directors to authorize the Company to purchase and maintain insurance against any liability asserted against any director, officer, employee or agent of the Company arising out of his capacity as such. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers, or controlling persons of the Company pursuant to the Company's Restated Certificate of Incorporation, as amended, its Restated By-laws and the Delaware General Corporation Law, the Company has been informed that in the opinion of the Commission such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the Company's Restated Certificate of Incorporation, as amended, provides that directors of the Company shall not be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, relating to prohibited dividends or distributions or the repurchase or redemption of stock or (iv) for any transaction from which the director derives an improper personal benefit. As a result of this provision, the Company and its stockholders may be unable to obtain monetary damages from a director for breach of his or her duty of care.

| Exhibit Number | Description |
|----------------------------|---|
| (4.1(a))*** (4.1(b))*** | Restated Certificate of Incorporation of the Registrant Certificate of Amendment of Restated Certificate of Incorporation of the Registrant |
| (4.2)** | Restated By-laws of the Company |
| (4.3)# | Form of Common Stock Certificate |
| (4.4)*** | Purchase Agreement dated as of August 28, 2000 between the Company and Acqua Wellington North America Equities Fund, Ltd. |
| (4.5)*** | Registration Rights Agreement dated as of August 28, 2000 between the Company and Acqua Wellington North America Equities Fund, Ltd. |
| (5.1)* | Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. regarding legality |
| (23.1)* | Consent of KPMG LLP |
| (23.2)* | Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (see Exhibit 5.1) |
| (24.1)* | Power of Attorney (included on signature page) |

- Previously filed with the Securities and Exchange Commission
- *** Previously filed and incorporated herein by reference from the Company's Form 10-K for the fiscal year ended June 30, 2000.
- ** Previously filed and incorporated herein by reference from the Company's Form 10-Q for the period ending September 30, 1995.
- # Previously filed and incorporated herein by reference from the Company's Registration Statement on Form S-1, File No. 33-95970.

Item 17. Undertakings.

- (a) 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth 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 (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3 or Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission 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.

(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) If the registrant is a foreign private issuer, to file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A of Form 20-F at the start of any delayed offering or through a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Act need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is a least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Act or Item 8.A. of Form 20-F if such financial statements and information are contained in periodic reports filed with or furnished to the Commission 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 Form F-3.
- (b) 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.
- (c) The undersigned Registrant hereby undertakes 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 Section 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.

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 Amendment No. 2 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Salt Lake City, State of Utah on November 15, 2000.

Myriad Genetics, Inc.

By: /s/ Peter D. Meldrum

Peter D. Meldrum

Title(s)

President and Chief Executive Officer

Date

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 2 to the Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature

| /s/ Peter D. Meldrum Peter D. Meldrum | President, Chief Executive Officer and Director (principal executive officer) | November 15, 2000 |
|---------------------------------------|--|-------------------|
| /s/ Jay M. Moyes Jay M. Moyes | Vice President of Finance and Chief Financial Officer (principal financial and accounting officer) | November 15, 2000 |
| * John J. Horan | Chairman of the Board | November 15, 2000 |
| * Walter Gilbert, Ph.D | Vice Chairman of the Board | November 15, 2000 |

| * Mark H. Skelnick, Ph.D. | Chief Scientific Officer and Director | November 15, 2000 |
|----------------------------------|---------------------------------------|-------------------|
| * Arthur H. Hayes, Jr., M.D. | Director | November 15, 2000 |
| * Dale A. Stringfellow, Ph.D. | Director | November 15, 2000 |
| * Alan J. Main, Ph.D. | Director | November 15, 2000 |
| * Michael J. Berendt, Ph.D. | Director | November 15, 2000 |
| * | Director | November 15, 2000 |

^{*} By executing his name hereto, Peter D. Meldrum is signing this document on behalf of the persons indicated above pursuant to powers of attorney duly executed by such persons and filed with the SEC.

By: /s/ Peter D. Meldrum

Linda S. Wilson, Ph.D.

Peter D. Meldrum

Peter D. Meldrum (Attorney-In-Fact)

EXHIBIT INDEX

| Exhibit Number | Description |
|-----------------------|--|
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| (4.1(b))*** | Certificate of Amendment of Restated Certificate of Incorporation of |
| | the Registrant |
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| ` , | and Acqua Wellington North America Equities Fund, Ltd. |
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| () | regarding legality |
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| (23.2)* | Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (see |
| (23.2) | |
| (04.4)4 | Exhibit 5.1) |
| (24.1)* | Power of Attorney (included on signature page) |
| | |

- Previously filed with the Securities and Exchange Commission.
 Previously filed and incorporated herein by reference from the Company's Form 10-K for the fiscal year ended June 30, 2000.
 Previously filed and incorporated herein by reference from the Company's Form 10-Q for the period ending September 30, 1995.
 Previously filed and incorporated herein by reference from the Company's Registration Statement on Form S-1, File No. 33-95970.