As filed with the Securities and Exchange Commission on March 13, 1997

REGISTRATION NO. 333 -

_______ SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 FORM S-8 **REGISTRATION STATEMENT** UNDER THE SECURITIES ACT OF 1933 MYRIAD GENETICS, INC. (Exact name of Registrant as specified in its charter) Delaware 87-0494517 (State or other jurisdiction (I.R.S. Employer of incorporation or organization) Identification No.) 320 WAKARA WAY SALT LAKE CITY, UTAH 84108 (801) 584-3600 (Address of Principal Executive Offices) 1992 EMPLOYEE, DIRECTOR AND CONSULTANT STOCK OPTION PLAN (Full titles of the plan) PETER D. MELDRUM PRESIDENT AND CHIEF EXECUTIVE OFFICER MYRIAD GENETICS, INC. 320 WAKARA WAY SALT LAKE CITY, UTAH 84108 (801) 584-3600 (Name, address, including zip code, and telephone number, including area code, of agent for service)

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered/1/	Proposed maximum offering price per share/2/	Proposed maximum aggregate offering price/2/	Amount of registration fee	
Common Stock, \$.01 par value	500,000	\$36.00	\$18,000,000	\$5,455	

- (1) The number of shares of common stock, par value \$.01 per share ("Common Stock"), stated above consists of the aggregate number of shares which may be sold upon the exercise of options which have been granted and/or may hereafter be granted under the Myriad Genetics, Inc. 1992 Employee, Director and Consultant Stock Option Plan (the "Plan"). The maximum number of shares which may be sold upon the exercise of such options granted under the Plan is subject to adjustment in accordance with certain anti-dilution and other provisions of the Plan. Accordingly, pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement covers, in addition to the number of shares stated above, an indeterminate number of shares which may be subject to grant or otherwise issuable after the operation of any such anti-dilution and other provisions.
- (2) This calculation is made solely for the purpose of determining the registration fee pursuant to the provisions of Rule 457(h) under the Securities Act. The registration fee is calculated on the basis of the average of the high and low sale prices per share of the Common Stock on the National Market System of the National Association of Securities Dealers Automated Quotation System (Nasdaq) as of a date (March 7, 1997) within 5 business days prior to filing this Registration Statement.

In accordance with the instructional Note to Part I of Form S-8 as promulgated by the Securities and Exchange Commission (the "Commission"), the information specified by Part I of Form S-8 has been omitted from this Registration Statement on Form S-8 for offers of Common Stock pursuant to the Plan. This Registration Statement on Form S-8 hereby registers 500,000 new shares of Common Stock pursuant to the Plan. A Registration Statement on Form S-8 (File No. 333-04700), registering an aggregate of 1,000,000 shares of Common Stock under the Plan was filed with the Commission on May 3, 1996.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Documents by Reference.

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The following documents filed by the Company with the Commission are incorporated herein by reference:

- (a) The Company's Annual Report on Form 10-K for the fiscal year ended June 30, 1996.
- (b) The Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 1996.
- (c) The Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 1996.
- (d) The description of the Common Stock contained in the Company's Registration Statement on Form 8-A (File No. 0-26642) filed under the Securities Exchange Act of 1934, including any amendment or report filed for the purpose of updating such description.

All reports and other documents filed by the Company after the date hereof pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such reports and documents.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the issuance of the shares of Common Stock registered under this Registration Statement has been passed upon for the Company by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. of Boston, Massachusetts. Members of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. own an aggregate of approximately 2,000 shares of Common Stock of the Company.

Item 6. Indemnification of Directors and Officers.

Incorporated herein by reference to the Company's Registration Statement on Form S-1, as amended, File No. 33-95970.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

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- (4.1) Form of Common Stock Certificate (filed as Exhibit 4.2 to the Company's Registration Statement on Form S-1, as amended, File No. 33-95970, and incorporated herein by reference).
- (4.2) Restated Certificate of Incorporation (filed as Exhibit 3.2 to the Company's Registration Statement on Form S-1, as amended, File No. 33-95970, and incorporated herein by reference).

- (4.3) Restated By-Laws (filed as Exhibit 3.4 to the Company's Registration Statement on Form S-1, as amended, File No. 33-95970, and incorporated herein by reference).
- (5) Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the legality of the shares being registered.
- (10.1) 1992 Employee, Director and Consultant Stock Option Plan (filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 1996, and incorporated herein by reference).
- (23.1) Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in opinion of counsel filed as Exhibit 5).
- (23.2) Consent of KPMG Peat Marwick LLP.
- (24) Power of Attorney to file future amendments (set forth on the signature page of this Registration Statement).

Item 9. 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, represents a fundamental change in the information set forth in the Registration Statement;
 - (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 by the Company pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this 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.

- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this 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.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company 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 Company of expenses incurred or paid by a director, officer or controlling person of the Company 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 Company 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.

SIGNATURES

The Registrant. Pursuant to the requirements of the Securities Act of 1933, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Salt Lake City, Utah on February 13, 1997.

MYRIAD GENETICS, INC.

By: /s/ PETER D. MELDRUM

Peter D. Meldrum President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints Peter D. Meldrum and Jay M. Moyes, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them, for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 of Myriad Genetics, Inc., and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in or about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his 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 by the following persons in the capacities and on the dates indicated.

Signature	Title	Date

/s/ MARK H. SKOLNICK, PH.D.	Executive Vice President	February	13,	1997	
Mark H. Skolnick, Ph.D.	and Director				
/s/ JAY M. MOYES Jay M. Moyes	Vice President of Finance, - Assistant Secretary and Assistant Treasurer (principal financial and accounting officer)	February	13,	1997	
/s/ MICHAEL J. BERENDT, PH.D. Michael J. Berendt, Ph.D.		February	13,	1997	
/s/ ARTHUR H. HAYES, JR., M.D. Arthur H. Hayes, Jr., M.D.		February	13,	1997	
Alan J. Main, Ph.D.	Director -	February	,	1997	
/s/ DALE A. STRINGFELLOW, PH.D. Dale A. Stringfellow, Ph.D.	Director -	February	13,	1997	
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MYRIAD GENETICS, INC.

INDEX TO EXHIBITS FILED WITH FORM S-8 REGISTRATION STATEMENT

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701 Pennsylvania Avenue, N.W. Washington, D.C. 20004 Telephone: 202/434-7300 Fax: 202/434-7400

Telephone: 617/542-6000 Fax: 617/542-2241

Direct Dial Number

March 13, 1997

Myriad Genetics, Inc. 320 Wakara Way Salt Lake City, UT 84108

Gentlemen:

We have acted as counsel to Myriad Genetics, Inc., a Delaware corporation (the "Company"), with respect to the preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-8 (the "Registration Statement"), pursuant to which the Company is registering an aggregate of 500,000 shares of its common stock, \$.01 par value per share (the "Shares"), under the Securities Act of 1933, as amended. This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Restated Certificate of Incorporation and Restated By-Laws, both as currently in effect; such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Based upon the foregoing, we are of the opinion that (i) the Shares have been duly authorized by the Company and (ii) the Shares, when issued and sold as described in the Registration Statement, will be duly and validly issued, fully paid and non-assessable shares of the Company.

Our opinion is limited to the General Corporation Laws of the State of Delaware, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction. Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Myriad Genetics, Inc. March 13, 1997 Page 2

We understand that you wish to file this opinion as an exhibit to the Registration Statement, and we hereby consent thereto.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C.

INDEPENDENT AUDITORS CONSENT

We consent to incorporation by reference in the Registration Statement on Form S-8 of Myriad Genetics, Inc. of our report dated August 9, 1996, relating to the consolidated balance sheets of Myriad Genetics, Inc. and subsidiary as of June 30, 1996, and 1995, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the years in the three-year period ended June 30, 1996, which report appears in the June 30, 1996, annual report on Form 10-K of Myriad Genetics, Inc.

> /s/ KPMG PEAT MARWICK LLP KPMG PEAT MARWICK LLP

Salt Lake City, Utah March 10, 1997